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RADIOACTIVE DECAY CORRECTION FACTORS

E. W. Bretthauer, et al

National Environmental Research Center
Las Vegas, Nevada

January 1973

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Radioactive Decay Correction Factors

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ABSTRACT

Tables of correction factors for radioactive decay are presented which facilitate the task of calculating the activity of a radioactive nuclide at a given time, given its activity at any other time. Tables are included for those nuclides which are commonly measured or used as standards or tracers. A universal decay correction table is also presented for application to radionuclides which are not included.

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INTRODUCTION

The first edition of the *Radioactive Decay Correction Factors* was prepared by K. H. Falter as Public Health Service Publication No. 999-RH-12. The demand for this publication exceeded the most optimistic expectations.

The preparation of the second edition was preceded by an inquiry to workers in the field as to the desirability of this type of publication and what additions or deletions should be incorporated into a second edition. All but one of the 51 replies favored a second edition with certain radionuclide additions. The second edition, therefore, contains several radionuclides which have come into wide use since publication of the first edition, e.g., ^{123}I, ^{13}N, ^{197}Hg, ^{18}F and ^{15}O. In addition, certain calculation intervals were modified to allow greater application of the tables. A universal decay correction table is also presented for calculation of activities of radionuclides not included in the first edition.

Tables of correction factors for the most commonly used radionuclides are presented. The factors are based on the equation which describes the rate of physical decay of radionuclides:

$$A_t = A_o e^{-\lambda t} \text{ or } A_t = A_o e^{-\ln 2t/T_{1/2}}$$

Where:

A_t is the activity at desired time t,

A_o is the activity at $t = o$ time,

e is the base of natural logarithms,

$T^{1/2}$ is the half-life, and

λ is $\frac{\ln 2}{T^{1/2}}$ or the decay constant.

The factors in the tables are:

$$F(t) = \frac{A_t}{A_o} = e^{-\lambda t}$$

Where $F(t)$ is the correction factor for time interval t.

The fractional ingrowth tables give the activity of the daughter at any time t as a fraction of the activity of the parent at time $t = 0$. These factors are based on the following equation:

$$F(t) = \frac{A_d(t)}{A_p(o)} = \frac{\lambda_d}{\lambda_d - \lambda_p}\left(e^{-\lambda p t} - e^{-\lambda d t}\right)$$

Where:

$F(t)$ = fractional ingrowth after time t,

$A_d(t)$ = activity of the daughter after time t,

$A_p(o)$ = activity of the parent at time $t = 0$,

$\lambda_d = \frac{\ln 2}{T^{1/2}}$ where $T^{1/2}$ is the half-life of the daughter, and

$\lambda_p = \frac{\ln 2}{T^{1/2}}$ where $T^{1/2}$ is the half-life of the parent.

To find the activity of the parent nuclide at $t = 0$, give the activity of the daughter at time t, divide the daughter's activity by the appropriate fractional ingrowth factor.

The factors in the universal decay table are:

$$G(n) = \frac{A_n}{A_o} = e^{-(\ln 2)\cdot n}$$

Where:

n is $t/T_{1/2}$, or the number of half-lives,

A_n is the activity after n half-lives, and

$G(n)$ is the correction factor for interval n.

TABLE OF CONTENTS

	Page
Abstract	i
Acknowledgements	ii
Introduction	iii
Correction Factors	
Actinium 225	139
227	140
228	142
Americium 241	151
Antimony 124	66
125	67
Argon 41	12
Arsenic 74	31
76	32
Barium 133	81
140	83
Beryllium 7	2
Bismuth 210	123
211	124
212	124
213	125
214	126
Bromine 82	34
Cadmium 109	63
115	64
Calcium 45	13
47	14
Carbon 11	3
14	3
Cerium 141	86
144	88
Cesium 132	79
134	80
137	81

Correction Factors (continued)	Page
Chromium 51	17
Cobalt 57	23
58	24
60	25
Copper 64	28
Europium 152	93
154	95
155	96
Fluorine 18	6
Francium 221	131
223	133
Gadolinium 153	98
Gallium 67	30
Gold 193	107
Halfnium 181	101
Hydrogen 3	1
Indium 113m	64
Iodine 123	71
125	72
131	74
132	76
133	77
135	77
Iridium 192	106
Iron 55	20
59	21
Krypton 85	34
Lanthanum 140	86
Lead 203	116
204m	117
209	118
210	119
211	121
212	122
214	122
Lucetium 177	100
Manganese 54	19

Correction Factors (continued)

	Page
Mercury 197	108
203	109
Molybdenum 99	51
Neodymium 147	90
Nickel 63	26
Niobium 95	50
Nitrogen 13	4
Oxygen 15	5
Phosphorus 32	9
Plutonium 238	149
241	150
Polonium 210	127
218	128
Potassium 42	12
Praesodymium 144	89
Promethium 147	91
Proactinium 233	147
234	148
Radium 223	134
224	135
225	136
226	137
228	138
Radon 220	129
222	130
Rhodium 102	57
103m	58
106	59
Rubidium 86	35
Ruthenium 103	53
105	55
106	57
Samarium 153	93
Scandium 46	16
Selenium 75	33

Correction Factors (continued)

	Page
Silver 110m	60
111	60
112	62
Sodium 22	7
24	8
Strontium 85	37
87m	39
89	40
90	42
91	44
Sulfur 35	10
Technecium 99m	53
Tellurium 131	69
132	70
Thallium 204	110
206	111
207	112
208	114
209	115
210	116
Thorium 227	143
228	144
229	145
231	146
234	146
Thulium 170	98
Tin 113	65
Tritium (See Hydrogen)	
Tungsten (See Wolfram)	
Uranium 237	148
Wolfram 181	102
185	103
187	104
188	104
Xenon 133	78
Ytterbium 169	99
Yttrium 88	45
90	46
91	47

Correction Factors (concluded) Page

Zinc 65	29
Zirconium 95	48
97	50

Fractional Ingrowth

Yttrium-90 into Strontium-90	155
Radium-226 into Radon-222	158
Universal Decay Correction Table	160

H - 3

HALF-LIFE 12.26 YEARS CALCULATION INTERVAL 30.0 DAYS

					DAYS					
DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9954	.9907	.9862	.9816	.9770	.9725	.9680	.9635	.9590
300.0	.9546	.9502	.9458	.9414	.9370	.9327	.9283	.9240	.9198	.9155
600.0	.9112	.9070	.9028	.8986	.8945	.8903	.8862	.8821	.8780	.8739
900.0	.8699	.8658	.8618	.8578	.8539	.8499	.8460	.8420	.8381	.8342
1200.0	.8304	.8265	.8227	.8189	.8151	.8113	.8075	.8038	.8001	.7964
1500.0	.7927	.7890	.7853	.7817	.7781	.7745	.7709	.7673	.7637	.7602
1800.0	.7567	.7532	.7497	.7462	.7427	.7393	.7359	.7325	.7291	.7257
2100.0	.7223	.7190	.7156	.7123	.7090	.7057	.7025	.6992	.6960	.6927
2400.0	.6895	.6863	.6831	.6800	.6768	.6737	.6706	.6675	.6644	.6613
2700.0	.6582	.6552	.6521	.6491	.6461	.6431	.6401	.6372	.6342	.6313
3000.0	.6283	.6254	.6225	.6196	.6168	.6139	.6111	.6082	.6054	.6026
3300.0	.5998	.5970	.5943	.5915	.5888	.5860	.5833	.5806	.5779	.5752
3600.0	.5726	.5699	.5673	.5646	.5620	.5594	.5568	.5542	.5517	.5491
3900.0	.5466	.5440	.5415	.5390	.5365	.5340	.5315	.5291	.5266	.5242
4200.0	.5218	.5193	.5169	.5145	.5121	.5098	.5074	.5051	.5027	.5004
4500.0	.4981	.4958	.4935	.4912	.4889	.4866	.4844	.4821	.4799	.4777
4800.0	.4754	.4732	.4710	.4689	.4667	.4645	.4624	.4602	.4581	.4560
5100.0	.4539	.4518	.4497	.4476	.4455	.4434	.4414	.4393	.4373	.4353
5400.0	.4332	.4312	.4292	.4273	.4253	.4233	.4213	.4194	.4174	.4155
5700.0	.4136	.4117	.4098	.4079	.4060	.4041	.4022	.4003	.3985	.3966
6000.0	.3948	.3930	.3911	.3893	.3875	.3857	.3839	.3822	.3804	.3786
6300.0	.3769	.3751	.3734	.3717	.3699	.3682	.3665	.3648	.3631	.3614
6600.0	.3598	.3581	.3564	.3548	.3531	.3515	.3499	.3482	.3466	.3450
6900.0	.3434	.3418	.3402	.3387	.3371	.3355	.3340	.3324	.3309	.3294
7200.0	.3278	.3263	.3248	.3233	.3218	.3203	.3188	.3173	.3159	.3144
7500.0	.3129	.3115	.3101	.3086	.3072	.3058	.3043	.3029	.3015	.3001
7800.0	.2987	.2974	.2960	.2946	.2932	.2919	.2905	.2892	.2878	.2865
8100.0	.2852	.2838	.2825	.2812	.2799	.2786	.2773	.2760	.2748	.2735
8400.0	.2722	.2710	.2697	.2685	.2672	.2660	.2647	.2635	.2623	.2611
8700.0	.2599	.2587	.2575	.2563	.2551	.2539	.2527	.2515	.2504	.2492
9000.0	.2481	.2469	.2458	.2446	.2435	.2424	.2412	.2401	.2390	.2379
9300.0	.2368	.2357	.2346	.2335	.2324	.2314	.2303	.2292	.2282	.2271
9600.0	.2260	.2250	.2240	.2229	.2219	.2209	.2198	.2188	.2178	.2168
9900.0	.2158	.2148	.2138	.2128	.2118	.2108	.2099	.2089	.2079	.2069
10200.0	.2060	.2050	.2041	.2031	.2022	.2013	.2003	.1994	.1985	.1975
10500.0	.1966	.1957	.1948	.1939	.1930	.1921	.1912	.1903	.1895	.1886
10800.0	.1877	.1868	.1860	.1851	.1842	.1834	.1825	.1817	.1809	.1800
11100.0	.1792	.1784	.1775	.1767	.1759	.1751	.1743	.1734	.1726	.1718
11400.0	.1710	.1703	.1695	.1687	.1679	.1671	.1663	.1656	.1648	.1640
11700.0	.1633	.1625	.1618	.1610	.1603	.1595	.1588	.1581	.1573	.1566
12000.0	.1559	.1551	.1544	.1537	.1530	.1523	.1516	.1509	.1502	.1495
12300.0	.1488	.1481	.1474	.1467	.1460	.1454	.1447	.1440	.1434	.1427
12600.0	.1420	.1414	.1407	.1401	.1394	.1388	.1381	.1375	.1368	.1362
12900.0	.1356	.1350	.1343	.1337	.1331	.1325	.1319	.1312	.1306	.1300
13200.0	.1294	.1288	.1282	.1276	.1270	.1265	.1259	.1253	.1247	.1241
13500.0	.1236	.1230	.1224	.1218	.1213	.1207	.1202	.1196	.1190	.1185
13800.0	.1179	.1174	.1168	.1163	.1158	.1152	.1147	.1142	.1136	.1131
14100.0	.1126	.1121	.1115	.1110	.1105	.1100	.1095	.1090	.1085	.1080
14400.0	.1075	.1070	.1065	.1060	.1055	.1050	.1045	.1040	.1036	.1031
14700.0	.1026	.1021	.1016	.1012	.1007	.1002	.0998	.0993	.0988	.0984
15000.0	.0979	.0975	.0970	.0966	.0961	.0957	.0952	.0948	.0944	.0939
15300.0	.0935	.0931	.0926	.0922	.0918	.0913	.0909	.0905	.0901	.0897
15600.0	.0892	.0888	.0884	.0880	.0876	.0872	.0868	.0864	.0860	.0856
15900.0	.0852	.0848	.0844	.0840	.0836	.0832	.0828	.0825	.0821	.0817
16200.0	.0813	.0809	.0806	.0802	.0798	.0795	.0791	.0787	.0784	.0780

H - 3

HALF-LIFE 12.26 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9450	.8931	.8440	.7976	.7538	.7123	.6732	.6362	.6012
10.0	.5681	.5369	.5074	.4795	.4532	.4282	.4047	.3825	.3614	.3416
20.0	.3228	.3050	.2883	.2724	.2575	.2433	.2299	.2173	.2053	.1941
30.0	.1834	.1733	.1638	.1548	.1463	.1382	.1306	.1235	.1167	.1103
40.0	.1042	.0985	.0931	.0879	.0831	.0785	.0742	.0701	.0663	.0626

(Column headings: YEARS)

BE - 7

HALF-LIFF 53.60 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9957	.9914	.9872	.9829	.9787	.9745	.9703	.9661	.9619	.9578	.9537
4.00	.9496	.9455	.9414	.9374	.9334	.9293	.9253	.9214	.9174	.9135	.9095	.9056
8.00	.9017	.8978	.8940	.8901	.8863	.8825	.8787	.8749	.8712	.8674	.8637	.8600
12.00	.8563	.8526	.8489	.8453	.8416	.8380	.8344	.8308	.8272	.8237	.8201	.8166
16.00	.8131	.8096	.8061	.8026	.7992	.7958	.7923	.7889	.7855	.7822	.7788	.7754
20.00	.7721	.7688	.7655	.7622	.7589	.7556	.7524	.7492	.7459	.7427	.7395	.7363
24.00	.7332	.7300	.7269	.7238	.7206	.7175	.7145	.7114	.7083	.7053	.7022	.6992
28.00	.6962	.6932	.6902	.6873	.6843	.6814	.6784	.6755	.6726	.6697	.6668	.6640
32.00	.6611	.6583	.6554	.6526	.6498	.6470	.6442	.6415	.6387	.6360	.6332	.6305
36.00	.6278	.6251	.6224	.6197	.6171	.6144	.6118	.6091	.6065	.6039	.6013	.5987
40.00	.5961	.5936	.5910	.5885	.5860	.5834	.5809	.5784	.5759	.5735	.5710	.5685
44.00	.5661	.5637	.5612	.5588	.5564	.5540	.5516	.5493	.5469	.5445	.5422	.5399
48.00	.5376	.5352	.5329	.5306	.5284	.5261	.5238	.5216	.5193	.5171	.5149	.5127
52.00	.5105	.5083	.5061	.5039	.5017	.4996	.4974	.4953	.4932	.4910	.4889	.4868
56.00	.4847	.4826	.4806	.4785	.4764	.4744	.4723	.4703	.4683	.4663	.4643	.4623
60.00	.4603	.4583	.4563	.4544	.4524	.4505	.4485	.4466	.4447	.4428	.4409	.4390
64.00	.4371	.4352	.4333	.4315	.4296	.4278	.4259	.4241	.4223	.4204	.4186	.4168
68.00	.4150	.4133	.4115	.4097	.4080	.4062	.4044	.4027	.4010	.3993	.3975	.3958
72.00	.3941	.3924	.3907	.3891	.3874	.3857	.3841	.3824	.3808	.3791	.3775	.3759
76.00	.3743	.3726	.3710	.3694	.3679	.3663	.3647	.3631	.3616	.3600	.3585	.3569
80.00	.3554	.3539	.3523	.3508	.3493	.3478	.3463	.3448	.3433	.3419	.3404	.3389
84.00	.3375	.3360	.3346	.3331	.3317	.3303	.3289	.3274	.3260	.3246	.3232	.3218
88.00	.3205	.3191	.3177	.3163	.3150	.3136	.3123	.3109	.3096	.3083	.3069	.3056
92.00	.3043	.3030	.3017	.3004	.2991	.2978	.2965	.2953	.2940	.2927	.2915	.2902
96.00	.2890	.2877	.2865	.2852	.2840	.2828	.2816	.2804	.2792	.2780	.2768	.2756
100.00	.2744	.2732	.2720	.2709	.2697	.2685	.2674	.2662	.2651	.2640	.2628	.2617
104.00	.2606	.2594	.2583	.2572	.2561	.2550	.2539	.2528	.2517	.2506	.2496	.2485
108.00	.2474	.2464	.2453	.2442	.2432	.2422	.2411	.2401	.2390	.2380	.2370	.2360
112.00	.2350	.2339	.2329	.2319	.2309	.2299	.2290	.2280	.2270	.226[illegible]	.2250	.2241
116.00	.2231	.2221	.2212	.2202	.2193	.2184	.2174	.2165	.2155	.2146	.2137	.2128
120.00	.2119	.2110	.2100	.2091	.2082	.2073	.2065	.2056	.2047	.2038	.2029	.2021
124.00	.2012	.2003	.1995	.1986	.1977	.1969	.1960	.1952	.1944	.1935	.1927	.1919
128.00	.1910	.1902	.1894	.1886	.1878	.1870	.1862	.1854	.1846	.1838	.1830	.1822
132.00	.1814	.1806	.1799	.1791	.1783	.1775	.1768	.1760	.1753	.1745	.1738	.1730
136.00	.1723	.1715	.1708	.1700	.1693	.1686	.1679	.1671	.1664	.1657	.1650	.1643
140.00	.1636	.1629	.1622	.1615	.1608	.1601	.1594	.1587	.1580	.1574	.1567	.1560
144.00	.1553	.1547	.1540	.1533	.1527	.1520	.1514	.1507	.1501	.1494	.1488	.1481
148.00	.1475	.1469	.1462	.1456	.1450	.1444	.1437	.1431	.1425	.1419	.1413	.1407
152.00	.1401	.1395	.1389	.1383	.1377	.1371	.1365	.1359	.1353	.1347	.1342	.1336
156.00	.1330	.1324	.1319	.1313	.1307	.1302	.1296	.1291	.1285	.1279	.1274	.1268
160.00	.1263	.1258	.1252	.1247	.1241	.1236	.1231	.1225	.1220	.1215	.12[illegible]	.1205
164.00	.1199	.1194	.1189	.1184	.1179	.1174	.1169	.1164	.1159	.1154	.1149	.1144
168.00	.1139	.1134	.1129	.1124	.1119	.1115	.1110	.1105	.1100	.1096	.1091	.1086
172.00	.1081	.1077	.1072	.1068	.1063	.1058	.1054	.1049	.1045	.1040	.1036	.1031
176.00	.1027	.1023	.1018	.1014	.1009	.1005	.1001	.0996	.0992	.0988	.0984	.0979

(Column headings: HOURS)

BE - 7

HALF-LIFE 53.60 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
180.00	.0975	.0971	.0967	.0963	.0958	.0954	.0950	.0946	.0942	.0938	.0934	.0930
184.00	.0926	.0922	.0918	.0914	.0910	.0906	.0902	.0898	.0895	.0891	.0887	.0883
188.00	.0879	.0876	.0872	.0868	.0864	.0861	.0857	.0853	.0850	.0846	.0842	.0839
192.00	.0835	.0831	.0828	.0824	.0821	.0817	.0814	.0810	.0807	.0803	.0800	.0796

C - 11

HALF-LIFE 20.34 MINUTES CALCULATION INTERVAL 30.0 SECONDS

MINUTES	SECONDS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9831	.9665	.9502	.9341	.9183	.9028	.8876	.8726	.8578	.8433	.8291
6.00	.8151	.8013	.7878	.7745	.7614	.7485	.7359	.7234	.7112	.6992	.6874	.6758
12.00	.6644	.6531	.6421	.6312	.6206	.6101	.5998	.5897	.5797	.5699	.5603	.5508
18.00	.5415	.5324	.5234	.5145	.5058	.4973	.4889	.4806	.4725	.4645	.4567	.4490
24.00	.4414	.4339	.4266	.4194	.4123	.4053	.3985	.3917	.3851	.3786	.3722	.3659
30.00	.3598	.3537	.3477	.3418	.3360	.3304	.3248	.3193	.3139	.3086	.3034	.2983
36.00	.2932	.2883	.2834	.2786	.2739	.2693	.2647	.2603	.2559	.2515	.2473	.2431
42.00	.2390	.2350	.2310	.2271	.2233	.2195	.2158	.2121	.2085	.2050	.2016	.1982
48.00	.1948	.1915	.1883	.1851	.1820	.1789	.1759	.1729	.1700	.1671	.1643	.1615
54.00	.1588	.1561	.1535	.1509	.1483	.1458	.1434	.1409	.1385	.1362	.1339	.1316
60.00	.1294	.1272	.1251	.1230	.1209	.1189	.1168	.1149	.1129	.1110	.1091	.1073
66.00	.1055	.1037	.1020	.1002	.0985	.0969	.0952	.0936	.0920	.0905	.0890	.0875
72.00	.0860	.0845	.0831	.0817	.0803	.0790	.0776	.0763	.0750	.0738	.0725	.0713

C - 14

HALF-LIFE 5730.00 YEARS CALCULATION INTERVAL 50.0 YEARS

YEARS	YEARS 0.0	50.0	100.0	150.0	200.0	250.0	300.0	350.0	400.0	450.0
0.0	1.0000	.9940	.9880	.9820	.9761	.9702	.9644	.9585	.9528	.9470
500.0	.9413	.9356	.9300	.9244	.9188	.9133	.9078	.9023	.8968	.8914
1000.0	.8861	.8807	.8754	.8701	.8649	.8597	.8545	.8493	.8442	.8391
1500.0	.8341	.8290	.8240	.8191	.8141	.8092	.8043	.7995	.7947	.7899
2000.0	.7851	.7804	.7757	.7710	.7663	.7617	.7571	.7526	.7480	.7435
2500.0	.7390	.7346	.7301	.7257	.7214	.7170	.7127	.7084	.7041	.6999
3000.0	.6957	.6915	.6873	.6831	.6790	.6749	.6709	.6668	.6628	.6588
3500.0	.6548	.6509	.6470	.6430	.6392	.6353	.6315	.6277	.6239	.6201
4000.0	.6164	.6127	.6090	.6053	.6017	.5980	.5944	.5908	.5873	.5837
4500.0	.5802	.5767	.5732	.5698	.5663	.5629	.5595	.5562	.5528	.5495
5000.0	.5462	.5429	.5396	.5363	.5331	.5299	.5267	.5235	.5204	.5172
5500.0	.5141	.5110	.5079	.5049	.5018	.4988	.4958	.4928	.4898	.4869
6000.0	.4839	.4810	.4781	.4752	.4724	.4695	.4667	.4639	.4611	.4583
6500.0	.4555	.4528	.4501	.4473	.4446	.4420	.4393	.4366	.4340	.4314
7000.0	.4288	.4262	.4236	.4211	.4185	.4160	.4135	.4110	.4085	.4061
7500.0	.4036	.4012	.3988	.3964	.3940	.3916	.3892	.3869	.3846	.3822
8000.0	.3799	.3776	.3754	.3731	.3709	.3686	.3664	.3642	.3620	.3598
8500.0	.3576	.3555	.3533	.3512	.3491	.3470	.3449	.3428	.3407	.3387
9000.0	.3366	.3346	.3326	.3306	.3286	.3266	.3247	.3227	.3207	.3188
9500.0	.3169	.3150	.3131	.3112	.3093	.3075	.3056	.3038	.3019	.3001
10000.0	.2983	.2965	.2947	.2929	.2912	.2894	.2877	.2859	.2842	.2825
10500.0	.2808	.2791	.2774	.2757	.2741	.2724	.2708	.2691	.2675	.2659
11000.0	.2643	.2627	.2611	.2596	.2580	.2564	.2549	.2533	.2518	.2503
11500.0	.2488	.2473	.2458	.2443	.2428	.2414	.2399	.2385	.2370	.2356
12000.0	.2342	.2328	.2314	.2300	.2286	.2272	.2258	.2245	.2231	.2218

C - 14

HALF-LIFE 5730.00 YEARS CALCULATION INTERVAL 50.0 YEARS

YEARS	0.0	50.0	100.0	150.0	200.0	250.0	300.0	350.0	400.0	450.0
12500.0	.2204	.2191	.2178	.2165	.2152	.2139	.2126	.2113	.2100	.2088
13000.0	.2075	.2063	.2050	.2038	.2025	.2013	.2001	.1989	.1977	.1965
13500.0	.1953	.1942	.1930	.1918	.1907	.1895	.1884	.1872	.1861	.1850
14000.0	.1839	.1828	.1817	.1806	.1795	.1784	.1773	.1762	.1752	.1741
14500.0	.1731	.1720	.1710	.1700	.1689	.1679	.1669	.1659	.1649	.1639
15000.0	.1629	.1619	.1610	.1600	.1590	.1581	.1571	.1562	.1552	.1543
15500.0	.1534	.1524	.1515	.1506	.1497	.1488	.1479	.1470	.1461	.1452
16000.0	.1444	.1435	.1426	.1418	.1409	.1401	.1392	.1384	.1375	.1367
16500.0	.1359	.1351	.1342	.1334	.1326	.1318	.1310	.1302	.1295	.1287
17000.0	.1279	.1271	.1264	.1256	.1248	.1241	.1233	.1226	.1219	.1211
17500.0	.1204	.1197	.1190	.1182	.1175	.1168	.1161	.1154	.1147	.1140
18000.0	.1133	.1126	.1120	.1113	.1106	.1100	.1093	.1086	.1080	.1073
18500.0	.1067	.1060	.1054	.1048	.1041	.1035	.1029	.1023	.1016	.1010
19000.0	.1004	.0998	.0992	.0986	.0980	.0974	.0968	.0963	.0957	.0951
19500.0	.0945	.0940	.0934	.0928	.0923	.0917	.0912	.0906	.0901	.0895
20000.0	.0890	.0884	.0879	.0874	.0869	.0863	.0858	.0853	.0848	.0843
20500.0	.0838	.0833	.0827	.0823	.0818	.0813	.0808	.0803	.0798	.0793

(Column headings: YEARS)

N - 13

HALF-LIFE 9.96 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9942	.9885	.9828	.9771	.9714	.9658	.9602	.9547	.9491	.9437	.9382
1.00	.9328	.9274	.9220	.9167	.9114	.9061	.9009	.8957	.8905	.8853	.8802	.8751
2.00	.8701	.8650	.8600	.8551	.8501	.8452	.8403	.8355	.8306	.8258	.8210	.8163
3.00	.8116	.8069	.8022	.7976	.7930	.7884	.7838	.7793	.7748	.7703	.7658	.7614
4.00	.7570	.7526	.7483	.7440	.7397	.7354	.7311	.7269	.7227	.7185	.7144	.7102
5.00	.7061	.7020	.6980	.6939	.6899	.6859	.6820	.6780	.6741	.6702	.6663	.6625
6.00	.6587	.6548	.6511	.6473	.6435	.6398	.6361	.6324	.6288	.6252	.6215	.6179
7.00	.6144	.6108	.6073	.6038	.6003	.5968	.5934	.5899	.5865	.5831	.5798	.5764
8.00	.5731	.5698	.5665	.5632	.5599	.5567	.5535	.5503	.5471	.5439	.5408	.5377
9.00	.5345	.5315	.5284	.5253	.5223	.5193	.5163	.5133	.5103	.5074	.5044	.5015
10.00	.4986	.4957	.4929	.4900	.4872	.4844	.4816	.4788	.4760	.4733	.4705	.4678
11.00	.4651	.4624	.4597	.4571	.4544	.4518	.4492	.4466	.4440	.4414	.4389	.4363
12.00	.4338	.4313	.4288	.4263	.4239	.4214	.4190	.4166	.4142	.4118	.4094	.4070
13.00	.4047	.4023	.4000	.3977	.3954	.3931	.3908	.3886	.3863	.3841	.3819	.3797
14.00	.3775	.3753	.3731	.3709	.3688	.3667	.3645	.3624	.3603	.3583	.3562	.3541
15.00	.3521	.3500	.3480	.3460	.3440	.3420	.3400	.3381	.3361	.3342	.3322	.3303
16.00	.3284	.3265	.3246	.3227	.3209	.3190	.3172	.3153	.3135	.3117	.3099	.3081
17.00	.3063	.3046	.3028	.3010	.2993	.2976	.2959	.2941	.2924	.2908	.2891	.2874
18.00	.2857	.2841	.2824	.2808	.2792	.2776	.2760	.2744	.2728	.2712	.2696	.2681
19.00	.2665	.2650	.2635	.2619	.2604	.2589	.2574	.2559	.2544	.2530	.2515	.2501
20.00	.2486	.2472	.2457	.2443	.2429	.2415	.2401	.2387	.2373	.2360	.2346	.2332
21.00	.2319	.2306	.2292	.2279	.2266	.2253	.2240	.2227	.2214	.2201	.2188	.2176
22.00	.2163	.2151	.2138	.2126	.2113	.2101	.2089	.2077	.2065	.2053	.2041	.2029
23.00	.2018	.2006	.1994	.1983	.1971	.1960	.1949	.1937	.1926	.1915	.1904	.1893
24.00	.1882	.1871	.1860	.1850	.1839	.1828	.1818	.1807	.1797	.1786	.1776	.1766
25.00	.1756	.1745	.1735	.1725	.1715	.1705	.1695	.1686	.1676	.1666	.1657	.1647
26.00	.1637	.1628	.1619	.1609	.1600	.1591	.1581	.1572	.1563	.1554	.1545	.1536
27.00	.1527	.1519	.1510	.1501	.1492	.1484	.1475	.1467	.1458	.1450	.1441	.1433
28.00	.1425	.1416	.1408	.1400	.1392	.1384	.1376	.1368	.1360	.1352	.1344	.1337
29.00	.1329	.1321	.1314	.1306	.1298	.1291	.1283	.1276	.1269	.1261	.1254	.1247

(Column headings: SECONDS)

N - 13

HALF-LIFF 9.96 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
						SECONDS						
30.00	.1240	.1232	.1225	.1218	.1211	.1204	.1197	.1190	.1183	.1177	.1170	.1163
31.00	.1156	.1150	.1143	.1136	.1130	.1123	.1117	.1110	.1104	.1097	.1091	.1085
32.00	.1079	.1072	.1066	.1060	.1054	.1048	.1042	.1036	.1030	.1024	.1018	.1012
33.00	.1006	.1000	.0994	.0989	.0983	.0977	.0972	.0966	.0960	.0955	.0949	.0944
34.00	.0938	.0933	.0928	.0922	.0917	.0912	.0906	.0901	.0896	.0891	.0886	.0880
35.00	.0875	.0870	.0865	.0860	.0855	.0850	.0845	.0840	.0836	.0831	.0826	.0821
36.00	.0816	.0812	.0807	.0802	.0798	.0793	.0789	.0784	.0779	.0775	.0770	.0766

O - 15

HALF-LIFF 123.00 SECONDS CALCULATION INTERVAL 1.0 SECONDS

SECONDS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
					SECONDS					
0.0	1.0000	.9944	.9888	.9832	.9777	.9722	.9668	.9613	.9559	.9505
10.0	.9452	.9399	.9346	.9294	.9241	.9189	.9138	.9086	.9035	.8985
20.0	.8934	.8884	.8834	.8784	.8735	.8686	.8637	.8589	.8540	.8492
30.0	.8445	.8397	.8350	.8303	.8256	.8210	.8164	.8118	.8072	.8027
40.0	.7982	.7937	.7892	.7848	.7804	.7760	.7716	.7673	.7630	.7587
50.0	.7544	.7502	.7460	.7418	.7376	.7335	.7294	.7253	.7212	.7171
60.0	.7131	.7091	.7051	.7012	.6972	.6933	.6894	.6855	.6817	.6778
70.0	.6740	.6702	.6665	.6627	.6590	.6553	.6516	.6480	.6443	.6407
80.0	.6371	.6335	.6300	.6264	.6229	.6194	.6159	.6125	.6090	.6056
90.0	.6022	.5988	.5954	.5921	.5888	.5855	.5822	.5789	.5756	.5724
100.0	.5692	.5660	.5628	.5597	.5565	.5534	.5503	.5472	.5441	.5410
110.0	.5380	.5350	.5320	.5290	.5260	.5231	.5201	.5172	.5143	.5114
120.0	.5085	.5057	.5028	.5000	.4972	.4944	.4916	.4889	.4861	.4834
130.0	.4807	.4780	.4753	.4726	.4699	.4673	.4647	.4621	.4595	.4569
140.0	.4543	.4518	.4492	.4467	.4442	.4417	.4392	.4367	.4343	.4319
150.0	.4294	.4270	.4246	.4222	.4199	.4175	.4152	.4128	.4105	.4082
160.0	.4059	.4036	.4013	.3991	.3969	.3946	.3924	.3902	.3880	.3858
170.0	.3837	.3815	.3794	.3772	.3751	.3730	.3709	.3688	.3667	.3647
180.0	.3626	.3606	.3586	.3566	.3546	.3526	.3506	.3486	.3466	.3447
190.0	.3428	.3408	.3389	.3370	.3351	.3332	.3314	.3295	.3277	.3258
200.0	.3240	.3222	.3204	.3186	.3168	.3150	.3132	.3115	.3097	.3080
210.0	.3062	.3045	.3028	.3011	.2994	.2977	.2960	.2944	.2927	.2911
220.0	.2894	.2878	.2862	.2846	.2830	.2814	.2798	.2783	.2767	.2751
230.0	.2736	.2721	.2705	.2690	.2675	.2660	.2645	.2630	.2615	.2601
240.0	.2586	.2571	.2557	.2543	.2528	.2514	.2500	.2486	.2472	.2458
250.0	.2444	.2431	.2417	.2403	.2390	.2376	.2363	.2350	.2337	.2323
260.0	.2310	.2297	.2284	.2272	.2259	.2246	.2234	.2221	.2208	.2196
270.0	.2184	.2171	.2159	.2147	.2135	.2123	.2111	.2099	.2087	.2076
280.0	.2064	.2052	.2041	.2029	.2018	.2007	.1995	.1984	.1973	.1962
290.0	.1951	.1940	.1929	.1918	.1908	.1897	.1886	.1876	.1865	.1855
300.0	.1844	.1834	.1823	.1813	.1803	.1793	.1783	.1773	.1763	.1753
310.0	.1743	.1733	.1724	.1714	.1704	.1695	.1685	.1676	.1666	.1657
320.0	.1648	.1638	.1629	.1620	.1611	.1602	.1593	.1584	.1575	.1566
330.0	.1557	.1548	.1540	.1531	.1523	.1514	.1505	.1497	.1489	.1480
340.0	.1472	.1464	.1455	.1447	.1439	.1431	.1423	.1415	.1407	.1399
350.0	.1391	.1383	.1376	.1368	.1360	.1353	.1345	.1337	.1330	.1322
360.0	.1315	.1308	.1300	.1293	.1286	.1278	.1271	.1264	.1257	.1250
370.0	.1243	.1236	.1229	.1222	.1215	.1208	.1202	.1195	.1188	.1182
380.0	.1175	.1168	.1162	.1155	.1149	.1142	.1136	.1129	.1123	.1117
390.0	.1110	.1104	.1098	.1092	.1086	.1080	.1074	.1068	.1062	.1056

O - 15

HALF-LIFE 123.00 SECONDS CALCULATION INTERVAL 1.0 SECONDS

	SECONDS									
SECONDS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
400.0	.1050	.1044	.1038	.1032	.1026	.1020	.1015	.1009	.1003	.0998
410.0	.0992	.0987	.0981	.0975	.0970	.0965	.0959	.0954	.0948	.0943
420.0	.0938	.0932	.0927	.0922	.0917	.0912	.0907	.0901	.0896	.0891
430.0	.0886	.0881	.0876	.0872	.0867	.0862	.0857	.0852	.0847	.0843
440.0	.0838	.0833	.0828	.0824	.0819	.0815	.0810	.0805	.0801	.0796

F - 18

HALF-LIFE 109.70 MINUTES CALCULATION INTERVAL 1.0 MINUTES

	MINUTES									
MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9937	.9874	.9812	.9750	.9689	.9628	.9567	.9507	.9447
10.0	.9388	.9329	.9270	.9211	.9153	.9096	.9038	.8982	.8925	.8869
20.0	.8813	.8757	.8702	.8647	.8593	.8539	.8485	.8432	.8378	.8326
30.0	.8273	.8221	.8169	.8118	.8067	.8016	.7965	.7915	.7865	.7816
40.0	.7767	.7718	.7669	.7621	.7573	.7525	.7478	.7431	.7384	.7337
50.0	.7291	.7245	.7200	.7154	.7109	.7064	.7020	.6976	.6932	.6888
60.0	.6845	.6802	.6759	.6716	.6674	.6632	.6590	.6549	.6507	.6466
70.0	.6426	.6385	.6345	.6305	.6265	.6226	.6187	.6148	.6109	.6070
80.0	.6032	.5994	.5956	.5919	.5882	.5845	.5808	.5771	.5735	.5699
90.0	.5663	.5627	.5592	.5556	.5521	.5487	.5452	.5418	.5384	.5350
100.0	.5316	.5283	.5249	.5216	.5183	.5151	.5118	.5086	.5054	.5022
110.0	.4991	.4959	.4928	.4897	.4866	.4835	.4805	.4775	.4745	.4715
120.0	.4685	.4655	.4626	.4597	.4568	.4539	.4511	.4482	.4454	.4426
130.0	.4398	.4370	.4343	.4316	.4288	.4261	.4234	.4208	.4181	.4155
140.0	.4129	.4103	.4077	.4051	.4026	.4000	.3975	.3950	.3925	.3901
150.0	.3876	.3852	.3827	.3803	.3779	.3755	.3732	.3708	.3685	.3662
160.0	.3639	.3616	.3593	.3570	.3548	.3525	.3503	.3481	.3459	.3438
170.0	.3416	.3394	.3373	.3352	.3331	.3310	.3289	.3268	.3247	.3227
180.0	.3207	.3187	.3166	.3146	.3127	.3107	.3087	.3068	.3049	.3029
190.0	.3010	.2991	.2973	.2954	.2935	.2917	.2898	.2880	.2862	.2844
200.0	.2826	.2808	.2791	.2773	.2755	.2738	.2721	.2704	.2687	.2670
210.0	.2653	.2636	.2620	.2603	.2587	.2570	.2554	.2538	.2522	.2506
220.0	.2491	.2475	.2459	.2444	.2428	.2413	.2398	.2383	.2368	.2353
230.0	.2338	.2323	.2309	.2294	.2280	.2265	.2251	.2237	.2223	.2209
240.0	.2195	.2181	.2167	.2154	.2140	.2127	.2113	.2100	.2087	.2074
250.0	.2060	.2048	.2035	.2022	.2009	.1996	.1984	.1971	.1959	.1947
260.0	.1934	.1922	.1910	.1898	.1886	.1874	.1862	.1851	.1839	.1827
270.0	.1816	.1804	.1793	.1782	.1771	.1759	.1748	.1737	.1726	.1715
280.0	.1705	.1694	.1683	.1673	.1662	.1652	.1641	.1631	.1621	.1610
290.0	.1600	.1590	.1580	.1570	.1560	.1551	.1541	.1531	.1521	.1512
300.0	.1502	.1493	.1483	.1474	.1465	.1456	.1446	.1437	.1428	.1419
310.0	.1410	.1401	.1393	.1384	.1375	.1366	.1358	.1349	.1341	.1332
320.0	.1324	.1316	.1307	.1299	.1291	.1283	.1275	.1267	.1259	.1251
330.0	.1243	.1235	.1227	.1220	.1212	.1204	.1197	.1189	.1182	.1174
340.0	.1167	.1159	.1152	.1145	.1138	.1131	.1123	.1116	.1109	.1102
350.0	.1095	.1088	.1082	.1075	.1068	.1061	.1055	.1048	.1041	.1035
360.0	.1028	.1022	.1015	.1009	.1003	.0996	.0990	.0984	.0978	.0971
370.0	.0965	.0959	.0953	.0947	.0941	.0935	.0929	.0924	.0918	.0912
380.0	.0906	.0901	.0895	.0889	.0884	.0878	.0873	.0867	.0862	.0856
390.0	.0851	.0845	.0840	.0835	.0830	.0824	.0819	.0814	.0809	.0804
400.0	.0799	.0794	.0789	.0784	.0779	.0774	.0769	.0764	.0759	.0754

NA - 22

HALF-LIFE 2.62 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9964	.9928	.9892	.9856	.9820	.9785	.9750	.9714	.9679
50.0	.9644	.9609	.9574	.9540	.9505	.9471	.9437	.9402	.9368	.9335
100.0	.9301	.9267	.9234	.9200	.9167	.9134	.9101	.9068	.9035	.9002
150.0	.8970	.8937	.8905	.8873	.8841	.8809	.8777	.8745	.8713	.8682
200.0	.8651	.8619	.8588	.8557	.8526	.8495	.8464	.8434	.8403	.8373
250.0	.8343	.8312	.8282	.8252	.8223	.8193	.8163	.8134	.8104	.8075
300.0	.8046	.8017	.7988	.7959	.7930	.7901	.7873	.7844	.7816	.7788
350.0	.7759	.7731	.7703	.7675	.7648	.7620	.7592	.7565	.7538	.7510
400.0	.7483	.7456	.7429	.7402	.7375	.7349	.7322	.7296	.7269	.7243
450.0	.7217	.7191	.7165	.7139	.7113	.7087	.7062	.7036	.7011	.6985
500.0	.6960	.6935	.6910	.6885	.6860	.6835	.6810	.6786	.6761	.6737
550.0	.6712	.6688	.6664	.6640	.6616	.6592	.6568	.6544	.6520	.6497
600.0	.6473	.6450	.6427	.6403	.6380	.6357	.6334	.6311	.6288	.6266
650.0	.6243	.6220	.6198	.6175	.6153	.6131	.6109	.6087	.6065	.6043
700.0	.6021	.5999	.5977	.5956	.5934	.5913	.5891	.5870	.5849	.5828
750.0	.5806	.5785	.5765	.5744	.5723	.5702	.5682	.5661	.5641	.5620
800.0	.5600	.5580	.5559	.5539	.5519	.5499	.5479	.5460	.5440	.5420
850.0	.5400	.5381	.5361	.5342	.5323	.5303	.5284	.5265	.5246	.5227
900.0	.5208	.5189	.5171	.5152	.5133	.5115	.5096	.5078	.5059	.5041
950.0	.5023	.5005	.4987	.4969	.4951	.4933	.4915	.4897	.4879	.4862
1000.0	.4844	.4827	.4809	.4792	.4774	.4757	.4740	.4723	.4706	.4689
1050.0	.4672	.4655	.4638	.4621	.4604	.4588	.4571	.4555	.4538	.4522
1100.0	.4505	.4489	.4473	.4457	.4441	.4425	.4409	.4393	.4377	.4361
1150.0	.4345	.4329	.4314	.4298	.4283	.4267	.4252	.4236	.4221	.4206
1200.0	.4190	.4175	.4160	.4145	.4130	.4115	.4100	.4085	.4071	.4056
1250.0	.4041	.4027	.4012	.3998	.3983	.3969	.3954	.3940	.3926	.3912
1300.0	.3897	.3883	.3869	.3855	.3841	.3827	.3814	.3800	.3786	.3772
1350.0	.3759	.3745	.3732	.3718	.3705	.3691	.3678	.3665	.3651	.3638
1400.0	.3625	.3612	.3599	.3586	.3573	.3560	.3547	.3534	.3521	.3509
1450.0	.3496	.3483	.3471	.3458	.3446	.3433	.3421	.3408	.3396	.3384
1500.0	.3371	.3359	.3347	.3335	.3323	.3311	.3299	.3287	.3275	.3263
1550.0	.3251	.3240	.3228	.3216	.3205	.3193	.3182	.3170	.3159	.3147
1600.0	.3136	.3124	.3113	.3102	.3091	.3079	.3068	.3057	.3046	.3035
1650.0	.3024	.3013	.3002	.2991	.2981	.2970	.2959	.2948	.2938	.2927
1700.0	.2917	.2906	.2895	.2885	.2875	.2864	.2854	.2843	.2833	.2823
1750.0	.2813	.2803	.2792	.2782	.2772	.2762	.2752	.2742	.2732	.2722
1800.0	.2713	.2703	.2693	.2683	.2674	.2664	.2654	.2645	.2635	.2626
1850.0	.2616	.2607	.2597	.2588	.2578	.2569	.2560	.2551	.2541	.2532
1900.0	.2523	.2514	.2505	.2496	.2487	.2478	.2469	.2460	.2451	.2442
1950.0	.2433	.2424	.2416	.2407	.2398	.2389	.2381	.2372	.2364	.2355
2000.0	.2347	.2338	.2330	.2321	.2313	.2304	.2296	.2288	.2279	.2271
2050.0	.2263	.2255	.2247	.2239	.2230	.2222	.2214	.2206	.2198	.2190
2100.0	.2182	.2175	.2167	.2159	.2151	.2143	.2136	.2128	.2120	.2112
2150.0	.2105	.2097	.2090	.2082	.2075	.2067	.2060	.2052	.2045	.2037
2200.0	.2030	.2023	.2015	.2008	.2001	.1993	.1986	.1979	.1972	.1965
2250.0	.1958	.1951	.1943	.1936	.1929	.1922	.1916	.1909	.1902	.1895
2300.0	.1888	.1881	.1874	.1868	.1861	.1854	.1847	.1841	.1834	.1827
2350.0	.1821	.1814	.1808	.1801	.1795	.1788	.1782	.1775	.1769	.1762
2400.0	.1756	.1750	.1743	.1737	.1731	.1724	.1718	.1712	.1706	.1700
2450.0	.1693	.1687	.1681	.1675	.1669	.1663	.1657	.1651	.1645	.1639
2500.0	.1633	.1627	.1621	.1616	.1610	.1604	.1598	.1592	.1587	.1581
2550.0	.1575	.1569	.1564	.1558	.1552	.1547	.1541	.1536	.1530	.1525
2600.0	.1519	.1513	.1508	.1503	.1497	.1492	.1486	.1481	.1476	.1470
2650.0	.1465	.1460	.1454	.1449	.1444	.1439	.1433	.1428	.1423	.1418
2700.0	.1413	.1408	.1403	.1398	.1392	.1387	.1382	.1377	.1372	.1367

NA - 22

HALF-LIFE 2.62 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
2750.0	.1363	.1358	.1353	.1348	.1343	.1338	.1333	.1328	.1324	.1319
2800.0	.1314	.1309	.1305	.1300	.1295	.1290	.1286	.1281	.1276	.1272
2850.0	.1267	.1263	.1258	.1254	.1249	.1244	.1240	.1235	.1231	.1227
2900.C	.1222	.1218	.1213	.1209	.1205	.1200	.1196	.1192	.1187	.1183
2950.0	.1179	.1174	.1170	.1166	.1162	-1157	.1153	.1149	.1145	.1141
3000.0	.1137	.1133	.1128	.1124	.1120	.1116	.1112	.1108	.1104	.1100
3050.0	.1096	.1092	.1088	.1084	.1080	.1077	.1073	.1069	.1065	.1061
3100.0	.1057	.1053	.1050	.1046	.1042	.1038	.1034	.1031	.1027	.1023
3150.0	.1020	.1016	.1012	.1009	.1005	.1001	.0998	.0994	.0990	.0987
3200.0	.0983	.0980	.0976	.0973	.0969	.0966	.0962	.0959	.0955	.0952
3250.0	.0948	.0945	.0941	.0938	.0935	.0931	.0928	.0925	.0921	.0918
3300.0	.0915	.0911	.0908	.0905	.0901	.0898	.0895	.0892	.0888	.0885
3350.0	.0882	.0879	.0876	.0872	.0869	.0866	.0863	.0860	.0857	.0854
3400.0	.0851	.0848	.0844	.0841	.0838	.0835	.0832	.0829	.0826	.0823
3450.0	.0820	.0817	.0814	.0811	.0809	.0806	.0803	.0800	.0797	.0794

(Column heads 0.0–45.0 are DAYS.)

NA - 24

HALF-LIFE 14.96 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9961	.9923	.9885	.9847	.9809	.9771	.9733	.9696	.9658	.9621	.9584
1.00	.9547	.9510	.9474	.9437	.9401	.9365	.9329	.9293	.9257	.9221	.9186	.9150
2.00	.9115	.9080	.9045	.9010	.8975	.8941	.8906	.8872	.8838	.8804	.8770	.8736
3.00	.8702	.8669	.8635	.8602	.8569	.8536	.8503	.8470	.8438	.8405	.8373	.8340
4.00	.8308	.8276	.8244	.8213	.8181	.8149	.8118	.8087	.8056	.8025	.7994	.7963
5.00	.7932	.7902	.7871	.7841	.7811	.7780	.7750	.7721	.7691	.7661	.7632	.7602
6.00	.7573	.7544	.7515	.7486	.7457	.7428	.7400	.7371	.7343	.7314	.7286	.7258
7.00	.7230	.7202	.7174	.7147	.7119	.7092	.7065	.7037	.7010	.6983	.6956	.6929
8.00	.6903	.6876	.6850	.6823	.6797	.6771	.6745	.6719	.6693	.6667	.6641	.6616
9.00	.6590	.6565	.6540	.6514	.6489	.6464	.6439	.6414	.6390	.6365	.6341	.6316
10.00	.6292	.6268	.6243	.6219	.6195	.6172	.6148	.6124	.6100	.6077	.6054	.6030
11.00	.6007	.5984	.5961	.5938	.5915	.5892	.5869	.5847	.5824	.5802	.5779	.5757
12.00	.5735	.5713	.5691	.5669	.5647	.5625	.5604	.5582	.5561	.5539	.5518	.5497
13.00	.5475	.5454	.5433	.5412	.5391	.5371	.5350	.5329	.5309	.5288	.5268	.5248
14.00	.5227	.5207	.5187	.5167	.5147	.5127	.5108	.5088	.5068	.5049	.5029	.5010
15.00	.4991	.4972	.4952	.4933	.4914	.4895	.4876	.4858	.4839	.4820	.4802	.4783
16.00	.4765	.4746	.4728	.4710	.4692	.4674	.4656	.4638	.4620	.4602	.4584	.4567
17.00	.4549	.4532	.4514	.4497	.4479	.4462	.4445	.4428	.4411	.4394	.4377	.4360
18.00	.4343	.4326	.4310	.4293	.4277	.4260	.4244	.4227	.4211	.4195	.4179	.4162
19.00	.4146	.4130	.4115	.4099	.4083	.4067	.4051	.4036	.4020	.4005	.3989	.3974
20.00	.3959	.3943	.3928	.3913	.3898	.3883	.3868	.3853	.3838	.3824	.3809	.3794
21.00	.3779	.3765	.3750	.3736	.3722	.3707	.3693	.3679	.3665	.3650	.3636	.3622
22.00	.3608	.3594	.3581	.3567	.3553	.3539	.3526	.3512	.3499	.3485	.3472	.3458
23.00	.3445	.3432	.3418	.3405	.3392	.3379	.3366	.3353	.3340	.3327	.3314	.3302
24.00	.3289	.3276	.3264	.3251	.3239	.3226	.3214	.3201	.3189	.3177	.3164	.3152
25.00	.3140	.3128	.3116	.3104	.3092	.3080	.3068	.3056	.3045	.3033	.3021	.3010
26.00	.2998	.2986	.2975	.2963	.2952	.2941	.2929	.2918	.2907	.2896	.2884	.2873
27.00	.2862	.2851	.2840	.2829	.2818	.2807	.2797	.2786	.2775	.2764	.2754	.2743
28.00	.2733	.2722	.2712	.2701	.2691	.2680	.2670	.2660	.2649	.2639	.2629	.2619
29.00	.2609	.2599	.2589	.2579	.2569	.2559	.2549	.2539	.2530	.2520	.2510	.2500
30.00	.2491	.2481	.2472	.2462	.2453	.2443	.2434	.2424	.2415	.2406	.2396	.2387
31.00	.2378	.2369	.2360	.2351	.2342	.2333	.2324	.2315	.2306	.2297	.2288	.2279
32.00	.2270	.2262	.2253	.2244	.2236	.2227	.2218	.2210	.2201	.2193	.2184	.2176
33.00	.2168	.2159	.2151	.2143	.2134	.2126	.2118	.2110	.2102	.2093	.2085	.2077
34.00	.2069	.2061	.2053	.2046	.2038	.2030	.2022	.2014	.2006	.1999	.1991	.1983

(Column heads 0.0–55.0 are MINUTES.)

NA - 24

HALF-LIFE 14.96 HOURS CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
35.00	.1976	.1968	.1960	.1953	.1945	.1938	.1930	.1923	.1916	.1908	.1901	.1894
36.00	.1886	.1879	.1872	.1865	.1857	.1850	.1843	.1836	.1829	.1822	.1815	.1808
37.00	.1801	.1794	.1787	.1780	.1773	.1766	.1760	.1753	.1746	.1739	.1733	.1726
38.00	.1719	.1713	.1706	.1699	.1693	.1686	.1680	.1673	.1667	.1661	.1654	.1648
39.00	.1641	.1635	.1629	.1623	.1616	.1610	.1604	.1598	.1592	.1585	.1579	.1573
40.00	.1567	.1561	.1555	.1549	.1543	.1537	.1531	.1525	.1519	.1514	.1508	.1502
41.00	.1496	.1490	.1485	.1479	.1473	.1468	.1462	.1456	.1451	.1445	.1440	.1434
42.00	.1428	.1423	.1417	.1412	.1407	.1401	.1396	.1390	.1385	.1380	.1374	.1369
43.00	.1364	.1359	.1353	.1348	.1343	.1338	.1333	.1327	.1322	.1317	.1312	.1307
44.00	.1302	.1297	.1292	.1287	.1282	.1277	.1272	.1267	.1262	.1258	.1253	.1248
45.00	.1243	.1238	.1234	.1229	.1224	.1219	.1215	.1210	.1205	.1201	.1196	.1191
46.00	.1187	.1182	.1178	.1173	.1169	.1164	.1160	.1155	.1151	.1146	.1142	.1137
47.00	.1133	.1129	.1124	.1120	.1116	.1111	.1107	.1103	.1099	.1094	.1090	.1086
48.00	.1082	.1078	.1073	.1069	.1065	.1061	.1057	.1053	.1049	.1045	.1041	.1037
49.00	.1033	.1029	.1025	.1021	.1017	.1013	.1009	.1005	.1001	.0998	.0994	.0990
50.00	.0986	.0982	.0978	.0975	.0971	.0967	.0963	.0960	.0956	.0952	.0949	.0945
51.00	.0941	.0938	.0934	.0931	.0927	.0923	.0920	.0916	.0913	.0909	.0906	.0902
52.00	.0899	.0895	.0892	.0888	.0885	.0882	.0878	.0875	.0871	.0868	.0865	.0861
53.00	.0858	.0855	.0851	.0848	.0845	.0842	.0838	.0835	.0832	.0829	.0826	.0822
54.00	.0819	.0816	.0813	.0810	.0807	.0804	.0800	.0797	.0794	.0791	.0788	.0785

P - 32

HALF-LIFE 14.28 DAYS CALCULATION INTERVAL 2.0 HOURS

	HOURS											
DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9960	.9919	.9879	.9840	.9800	.9760	.9721	.9682	.9642	.9604	.9565
1.00	.9526	.9488	.9449	.9411	.9373	.9335	.9298	.9260	.9223	.9186	.9149	.9112
2.00	.9075	.9038	.9002	.8965	.8929	.8893	.8857	.8821	.8786	.8750	.8715	.8680
3.00	.8645	.8610	.8575	.8541	.8506	.8472	.8438	.8404	.8370	.8336	.8302	.8269
4.00	.8235	.8202	.8169	.8136	.8103	.8070	.8038	.8005	.7973	.7941	.7909	.7877
5.00	.7845	.7813	.7782	.7750	.7719	.7688	.7657	.7626	.7595	.7565	.7534	.7504
6.00	.7473	.7443	.7413	.7383	.7353	.7324	.7294	.7265	.7235	.7206	.7177	.7148
7.00	.7119	.7091	.7062	.7033	.7005	.6977	.6949	.6921	.6893	.6865	.6837	.6809
8.00	.6782	.6755	.6727	.6700	.6673	.6646	.6619	.6593	.6566	.6540	.6513	.6487
9.00	.6461	.6435	.6409	.6383	.6357	.6331	.6306	.6280	.6255	.6230	.6205	.6179
10.00	.6155	.6130	.6105	.6080	.6056	.6031	.6007	.5983	.5959	.5935	.5911	.5887
11.00	.5863	.5839	.5816	.5792	.5769	.5746	.5722	.5699	.5676	.5653	.5631	.5608
12.00	.5585	.5563	.5540	.5518	.5495	.5473	.5451	.5429	.5407	.5385	.5364	.5342
13.00	.5321	.5299	.5278	.5256	.5235	.5214	.5193	.5172	.5151	.5130	.5110	.5089
14.00	.5068	.5048	.5028	.5007	.4987	.4967	.4947	.4927	.4907	.4887	.4867	.4848
15.00	.4828	.4809	.4789	.4770	.4751	.4732	.4713	.4693	.4675	.4656	.4637	.4618
16.00	.4600	.4581	.4562	.4544	.4526	.4507	.4489	.4471	.4453	.4435	.4417	.4399
17.00	.4382	.4364	.4346	.4329	.4311	.4294	.4277	.4259	.4242	.4225	.4208	.4191
18.00	.4174	.4157	.4140	.4124	.4107	.4090	.4074	.4057	.4041	.4025	.4009	.3992
19.00	.3976	.3960	.3944	.3928	.3912	.3897	.3881	.3865	.3850	.3834	.3819	.3803
20.00	.3788	.3773	.3757	.3742	.3727	.3712	.3697	.3682	.3667	.3652	.3638	.3623
21.00	.3608	.3594	.3579	.3565	.3550	.3536	.3522	.3508	.3493	.3479	.3465	.3451
22.00	.3437	.3424	.3410	.3396	.3382	.3369	.3355	.3341	.3328	.3314	.3301	.3288
23.00	.3275	.3261	.3248	.3235	.3222	.3209	.3196	.3183	.3170	.3157	.3145	.3132
24.00	.3119	.3107	.3094	.3082	.3069	.3057	.3045	.3032	.3020	.3008	.2996	.2984
25.00	.2972	.2960	.2948	.2936	.2924	.2912	.2900	.2889	.2877	.2865	.2854	.2842
26.00	.2831	.2819	.2808	.2797	.2785	.2774	.2763	.2752	.2741	.2730	.2719	.2708
27.00	.2697	.2686	.2675	.2664	.2653	.2643	.2632	.2621	.2611	.2600	.2590	.2579
28.00	.2569	.2559	.2548	.2538	.2528	.2517	.2507	.2497	.2487	.2477	.2467	.2457
29.00	.2447	.2437	.2427	.2418	.2408	.2398	.2388	.2379	.2369	.2360	.2350	.2341

P - 32

HALF-LIFE 14.28 DAYS CALCULATION INTERVAL 2.0 HOURS

	HOURS											
DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
30.00	.2331	.2322	.2312	.2303	.2294	.2285	.2275	.2266	.2257	.2248	.2239	.2230
31.00	.2221	.2212	.2203	.2194	.2185	.2176	.2168	.2159	.2150	.2141	.2133	.2124
32.00	.2116	.2107	.2099	.2090	.2082	.2073	.2065	.2056	.2048	.2040	.2032	.2023
33.00	.2015	.2007	.1999	.1991	.1983	.1975	.1967	.1959	.1951	.1943	.1935	.1928
34.00	.1920	.1912	.1904	.1897	.1889	.1881	.1874	.1866	.1859	.1851	.1844	.1836
35.00	.1829	.1821	.1814	.1807	.1800	.1792	.1785	.1778	.1771	.1763	.1756	.1749
36.00	.1742	.1735	.1728	.1721	.1714	.1707	.1700	.1694	.1687	.1680	.1673	.1666
37.00	.1660	.1653	.1646	.1640	.1633	.1626	.1620	.1613	.1607	.1600	.1594	.1587
38.00	.1581	.1575	.1568	.1562	.1556	.1549	.1543	.1537	.1531	.1525	.1518	.1512
39.00	.1506	.1500	.1494	.1488	.1482	.1476	.1470	.1464	.1458	.1452	.1446	.1441
40.00	.1435	.1429	.1423	.1417	.1412	.1406	.1400	.1395	.1389	.1383	.1378	.1372
41.00	.1367	.1361	.1356	.1350	.1345	.1339	.1334	.1329	.1323	.1318	.1313	.1307
42.00	.1302	.1297	.1292	.1286	.1281	.1276	.1271	.1266	.1261	.1255	.1250	.1245
43.00	.1240	.1235	.1230	.1225	.1220	.1215	.1211	.1206	.1201	.1196	.1191	.1186
44.00	.1182	.1177	.1172	.1167	.1163	.1158	.1153	.1149	.1144	.1139	.1135	.1130
45.00	.1126	.1121	.1117	.1112	.1108	.1103	.1099	.1094	.1090	.1085	.1081	.1077
46.00	.1072	.1068	.1064	.1059	.1055	.1051	.1047	.1042	.1038	.1034	.1030	.1026
47.00	.1021	.1017	.1013	.1009	.1005	.1001	.0997	.0993	.0989	.0985	.0981	.0977
48.00	.0973	.0969	.0965	.0961	.0957	.0954	.0950	.0946	.0942	.0938	.0934	.0931
49.00	.0927	.0923	.0919	.0916	.0912	.0908	.0905	.0901	.0897	.0894	.0890	.0887
50.00	.0883	.0879	.0876	.0872	.0869	.0865	.0862	.0858	.0855	.0851	.0848	.0845
51.00	.0841	.0838	.0834	.0831	.0828	.0824	.0821	.0818	.0814	.0811	.0808	.0805
52.00	.0801	.0798	.0795	.0792	.0788	.0785	.0782	.0779	.0776	.0773	.0770	.0766

S - 35

HALF-LIFE 87.90 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9974	.9948	.9921	.9895	.9869	.9844	.9818	.9792	.9766	.9741	.9715
4.00	.9689	.9664	.9639	.9613	.9588	.9563	.9538	.9513	.9488	.9463	.9438	.9413
8.00	.9389	.9364	.9339	.9315	.9290	.9266	.9242	.9217	.9193	.9169	.9145	.9121
12.00	.9097	.9073	.9049	.9026	.9002	.8978	.8955	.8931	.8908	.8884	.8861	.8838
16.00	.8815	.8792	.8768	.8745	.8722	.8700	.8677	.8654	.8631	.8609	.8586	.8563
20.00	.8541	.8519	.8496	.8474	.8452	.8429	.8407	.8385	.8363	.8341	.8319	.8298
24.00	.8276	.8254	.8232	.8211	.8189	.8168	.8146	.8125	.8104	.8082	.8061	.8040
28.00	.8019	.7998	.7977	.7956	.7935	.7914	.7893	.7873	.7852	.7831	.7811	.7790
32.00	.7770	.7749	.7729	.7709	.7689	.7668	.7648	.7628	.7608	.7588	.7568	.7548
36.00	.7529	.7509	.7489	.7469	.7450	.7430	.7411	.7391	.7372	.7353	.7333	.7314
40.00	.7295	.7276	.7257	.7237	.7218	.7200	.7181	.7162	.7143	.7124	.7106	.7087
44.00	.7068	.7050	.7031	.7013	.6994	.6976	.6958	.6939	.6921	.6903	.6885	.6867
48.00	.6849	.6831	.6813	.6795	.6777	.6759	.6742	.6724	.6706	.6689	.6671	.6654
52.00	.6636	.6619	.6601	.6584	.6567	.6550	.6532	.6515	.6498	.6481	.6464	.6447
56.00	.6430	.6413	.6396	.6380	.6363	.6346	.6329	.6313	.6296	.6280	.6263	.6247
60.00	.6230	.6214	.6198	.6182	.6165	.6149	.6133	.6117	.6101	.6085	.6069	.6053
64.00	.6037	.6021	.6005	.5990	.5974	.5958	.5943	.5927	.5911	.5896	.5880	.5865
68.00	.5850	.5834	.5819	.5804	.5788	.5773	.5758	.5743	.5728	.5713	.5698	.5683
72.00	.5668	.5653	.5638	.5623	.5609	.5594	.5579	.5565	.5550	.5535	.5521	.5506
76.00	.5492	.5477	.5463	.5449	.5434	.5420	.5406	.5392	.5378	.5364	.5349	.5335
80.00	.5321	.5307	.5293	.5280	.5266	.5252	.5238	.5224	.5211	.5197	.5183	.5170
84.00	.5156	.5143	.5129	.5116	.5102	.5089	.5075	.5062	.5049	.5036	.5022	.5009
88.00	.4996	.4983	.4970	.4957	.4944	.4931	.4918	.4905	.4892	.4879	.4866	.4854
92.00	.4841	.4828	.4816	.4803	.4790	.4778	.4765	.4753	.4740	.4728	.4715	.4703
96.00	.4691	.4678	.4666	.4654	.4642	.4629	.4617	.4605	.4593	.4581	.4569	.4557

HALF-LIFE 87.90 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
100.00	.4545	.4533	.4521	.4509	.4497	.4486	.4474	.4462	.4450	.4439	.4427	.4415
104.00	.4404	.4392	.4381	.4369	.4358	.4346	.4335	.4324	.4312	.4301	.4290	.4278
108.00	.4267	.4256	.4245	.4234	.4222	.4211	.4200	.4189	.4178	.4167	.4156	.4145
112.00	.4135	.4124	.4113	.4102	.4091	.4081	.4070	.4059	.4049	.4038	.4027	.4017
116.00	.4006	.3996	.3985	.3975	.3964	.3954	.3944	.3933	.3923	.3913	.3902	.3892
120.00	.3882	.3872	.3861	.3851	.3841	.3831	.3821	.3811	.3801	.3791	.3781	.3771
124.00	.3761	.3751	.3742	.3732	.3722	.3712	.3702	.3693	.3683	.3673	.3664	.3654
128.00	.3645	.3635	.3625	.3616	.3606	.3597	.3587	.3578	.3569	.3559	.3550	.3541
132.00	.3531	.3522	.3513	.3504	.3494	.3485	.3476	.3467	.3458	.3449	.3440	.3431
136.00	.3422	.3413	.3404	.3395	.3386	.3377	.3368	.3359	.3351	.3342	.3333	.3324
140.00	.3315	.3307	.3298	.3289	.3281	.3272	.3264	.3255	.3246	.3238	.3229	.3221
144.00	.3213	.3204	.3196	.3187	.3179	.3171	.3162	.3154	.3146	.3137	.3129	.3121
148.00	.3113	.3105	.3096	.3088	.3080	.3072	.3064	.3056	.3048	.3040	.3032	.3024
152.00	.3016	.3008	.3000	.2992	.2985	.2977	.2969	.2961	.2953	.2946	.2938	.2930
156.00	.2922	.2915	.2907	.2900	.2892	.28[illegible]4	.2877	.2869	.2862	.2854	.2847	.2839
160.00	.2832	.2824	.2817	.2809	.2802	.2795	.2787	.2780	.2773	.2766	.2758	.2751
164.00	.2744	.2737	.2729	.2722	.2715	.2708	.2701	.2694	.2687	.2680	.2673	.2666
168.00	.2659	.2652	.2645	.2638	.2631	.2624	.2617	.2610	.2603	.2596	.2590	.2583
172.00	.2576	.2569	.2563	.2556	.2549	.2542	.2536	.2529	.2522	.2516	.2509	.2503
176.00	.2496	.2490	.2483	.2476	.2470	.2463	.2457	.2451	.2444	.2438	.2431	.2425
180.00	.2419	.2412	.2406	.2400	.2393	.2387	.2381	.2374	.2368	.2362	.2356	.2350
184.00	.2343	.2337	.2331	.2325	.2319	.2313	.2307	.2301	.2295	.2289	.2283	.2277
188.00	.2271	.2265	.2259	.2253	.2247	.2241	.2235	.2229	.2223	.2218	.2212	.2206
192.00	.2200	.2194	.2189	.2183	.2177	.2171	.2166	.2160	.2154	.2149	.2143	.2137
196.00	.2132	.2126	.2121	.2115	.2110	.2104	.2099	.2093	.2088	.2082	.2077	.2071
200.00	.2066	.2060	.2055	.2049	.2044	.2039	.2033	.2028	.2023	.2017	.2012	.2007
204.00	.2002	.1996	.1991	.1986	.1981	.1975	.1970	.1965	.1960	.1955	.1950	.1944
208.00	.1939	.1934	.1929	.1924	.1919	.1914	.1909	.1904	.1899	.1894	.1889	.1884
212.00	.1879	.1874	.1869	.1864	.1860	.1855	.1850	.1845	.1840	.1835	.1830	.1826
216.00	.1821	.1816	.1811	.1807	.1802	.1797	.1792	.1788	.1783	.1778	.1774	.1769
220.00	.1764	.1760	.1755	.1750	.1746	.1741	.1737	.1732	.1728	.1723	.1719	.1714
224.00	.1710	.1705	.1701	.1696	.1692	.1687	.1683	.1678	.1674	.1670	.1665	.1661
228.00	.1656	.1652	.1648	.1643	.1639	.1635	.1631	.1626	.1622	.1618	.1613	.1609
232.00	.1605	.1601	.1597	.1592	.1588	.1584	.1580	.1576	.1572	.1567	.1563	.1559
236.00	.1555	.1551	.1547	.1543	.1539	.1535	.1531	.1527	.1523	.1519	.1515	.1511
240.00	.1507	.1503	.1499	.1495	.1491	.1487	.1483	.1479	.1476	.1472	.1468	.1464
244.00	.1460	.1456	.1452	.1449	.1445	.1441	.1437	.1433	.1430	.1426	.1422	.1418
248.00	.1415	.1411	.1407	.1404	.1400	.1396	.1393	.1389	.1385	.1382	.1378	.1374
252.00	.1371	.1367	.1364	.1360	.1356	.1353	.1349	.1346	.1342	.1339	.1335	.1332
256.00	.1328	.1325	.1321	.1318	.1314	.1311	.1307	.1304	.1301	.1297	.1294	.1290
260.00	.1287	.1284	.1280	.1277	.1274	.1270	.1267	.1264	.1260	.1257	.1254	.1250
264.00	.1247	.1244	.1241	.1237	.1234	.1231	.1228	.1224	.1221	.1218	.1215	.1212
268.00	.1208	.1205	.1202	.1199	.1196	.1193	.1189	.1186	.1183	.1180	.1177	.1174
272.00	.1171	.116[illegible]	.1165	.1162	.1159	.1156	.1152	.1149	.1146	.1143	.1140	.1137
276.00	.1134	.1131	.1129	.1126	.1123	.1120	.1117	.1114	.1111	.1108	.1105	.1102
280.00	.1099	.1096	.1093	.1091	.1088	.1085	.1082	.1079	.1076	.1074	.1071	.1068
284.00	.1065	.1062	.1060	.1057	.1054	.1051	.1048	.1046	.1043	.1040	.1037	.1035
288.00	.1032	.1029	.1027	.1024	.1021	.1019	.1016	.1013	.1011	.1008	.1005	.1003
292.00	.1000	.0997	.0995	.0992	.0990	.0987	.0984	.0982	.0979	.0977	.0974	.0971
296.00	.0969	.0966	.0964	.0961	.0959	.0956	.0954	.0951	.0949	.0946	.0944	.0941
300.00	.0939	.0936	.0934	.0931	.0929	.0927	.0924	.0922	.0919	.0917	.0914	.0912
304.00	.0910	.0907	.0905	.0903	.0900	.0898	.0895	.0893	.0891	.0888	.0886	.0884
308.00	.0881	.0879	.0877	.0875	.0872	.0870	.0868	.0865	.0863	.0861	.0859	.0856
312.00	.0854	.0852	.0850	.0847	.0845	.0843	.0841	.0839	.0836	.0834	.0832	.0830
316.00	.0828	.0825	.0823	.0821	.0819	.0817	.0815	.0812	.0810	.0808	.0806	.0804

S - 35

HALF-LIFE 87.90 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
	HOURS											
320.00	.0802	.0800	.0798	.0796	.0793	.0791	.0789	.0787	.0785	.0783	.0781	.0779

AR - 41

HALF-LIFE 1.83 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
	MINUTES											
0.00	1.0000	.9937	.9875	.9812	.9751	.9689	.9628	.9568	.9508	.9448	.9388	.9329
.20	.9270	.9212	.9154	.9097	.9039	.8982	.8926	.8870	.8814	.6758	.8703	.8649
.40	.8594	.8540	.8486	.8433	.8380	.8327	.8275	.8223	.8171	.8119	.8068	.8018
.60	.7967	.7917	.7867	.7818	.7768	.7720	.7671	.7623	.7575	.7527	.7480	.7433
.80	.7386	.7339	.7293	.7247	.7202	.7156	.7111	.7067	.7022	.6978	.6934	.6890
1.00	.6847	.6804	.6761	.6719	.6676	.6634	.6593	.6551	.6510	.6469	.6428	.6388
1.20	.6348	.6308	.6268	.6228	.6189	.6150	.6112	.6073	.6035	.5997	.5959	.5922
1.40	.5884	.5847	.5811	.5774	.5738	.5702	.5666	.5630	.5595	.5559	.5524	.5490
1.60	.5455	.5421	.5387	.5353	.5319	.5286	.5252	.5219	.5186	.5154	.5121	.5089
1.80	.5057	.5025	.4994	.4962	.4931	.4900	.4869	.4839	.4808	.4778	.4748	.4718
2.00	.4688	.4659	.4629	.4600	.4571	.4543	.4514	.4486	.4457	.4429	.4401	.4374
2.20	.4346	.4319	.4292	.4265	.4238	.4211	.4185	.4158	.4132	.4106	.4080	.4055
2.40	.4029	.4004	.3979	.3953	.3929	.3904	.3879	.3855	.3831	.3807	.3783	.3759
2.60	.3735	.3712	.3688	.3665	.3642	.3619	.3596	.3574	.3551	.3529	.3507	.3485
2.80	.3463	.3441	.3419	.3398	.3376	.3355	.3334	.3313	.3292	.3271	.3251	.3230
3.00	.3210	.3190	.3170	.3150	.3130	.3110	.3091	.3071	.3052	.3033	.3014	.2995
3.20	.2976	.2957	.2938	.2920	.2902	.2883	.2865	.2847	.2829	.2811	.2794	.2776
3.40	.2759	.2741	.2724	.2707	.2690	.2673	.2656	.2639	.2623	.2606	.2590	.2574
3.60	.2557	.2541	.2525	.2509	.2494	.2478	.2462	.2447	.2432	.2416	.2401	.2386
3.80	.2371	.2356	.2341	.2326	.2312	.2297	.2283	.2268	.2254	.2240	.2226	.2212
4.00	.2198	.2184	.2170	.2157	.2143	.2130	.2116	.2103	.2090	.2077	.2063	.2050
4.20	.2038	.2025	.2012	.1999	.1987	.1974	.1962	.1949	.1937	.1925	.1913	.1901
4.40	.1889	.1877	.1865	.1853	.1842	.1830	.1819	.1807	.1796	.1785	.1773	.1762
4.60	.1751	.1740	.1729	.1718	.1707	.1697	.1686	.1675	.1665	.1654	.1644	.1634
4.80	.1623	.1613	.1603	.1593	.1583	.1573	.1563	.1553	.1543	.1534	.1524	.1514
5.00	.1505	.1495	.1486	.1477	.1467	.1458	.1449	.1440	.1431	.1422	.1413	.1404
5.20	.1395	.1386	.1378	.1369	.1360	.1352	.1343	.1335	.1326	.1318	.1310	.1302
5.40	.1293	.1285	.1277	.1269	.1261	.1253	.1245	.1237	.1230	.1222	.1214	.1207
5.60	.1199	.1191	.1184	.1176	.1169	.1162	.1154	.1147	.1140	.1133	.1126	.1119
5.80	.1112	.1105	.1098	.1091	.1084	.1077	.1070	.1063	.1057	.1050	.1044	.1037
6.00	.1030	.1024	.1017	.1011	.1005	.0998	.0992	.0986	.0980	.0974	.0967	.0961
6.20	.0955	.0949	.0943	.0937	.0931	.0926	.0920	.0914	.0908	.0902	.0897	.0891
6.40	.0886	.0880	.0874	.0869	.0863	.0858	.0853	.0847	.0842	.0837	.0831	.0826
6.60	.0821	.0816	.0811	.0806	.0800	.0795	.0790	.0785	.0781	.0776	.0771	.0766

K - 42

HALF-LIFE 12.36 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
	MINUTES											
0.00	1.0000	.9953	.9907	.9861	.9815	.9769	.9723	.9678	.9633	.9588	.9543	.9499
1.00	.9455	.9411	.9367	.9323	.9280	.9236	.9193	.9150	.9108	.9065	.9023	.8981
2.00	.8939	.8897	.8856	.8815	.8773	.8733	.8692	.8651	.8611	.8571	.8531	.8491
3.00	.8452	.8412	.8373	.8334	.8295	.8256	.8218	.8180	.8141	.8103	.8066	.8028
4.00	.7991	.7953	.7916	.7879	.7843	.7806	.7770	.7733	.7697	.7661	.7626	.7590
5.00	.7555	.7520	.7485	.7450	.7415	.7380	.7346	.7312	.7278	.7244	.7210	.7176
6.00	.7143	.7110	.7076	.7043	.7011	.6978	.6945	.6913	.6881	.6849	.6817	.6785
7.00	.6753	.6722	.6690	.6659	.6628	.6597	.6567	.6536	.6505	.6475	.6445	.6415
8.00	.6385	.6355	.6326	.6296	.6267	.6238	.6208	.6179	.6151	.6122	.6093	.6065
9.00	.6037	.6009	.5981	.5953	.5925	.5897	.5870	.5842	.5815	.5788	.5761	.5734

K - 42

HALF-LIFE 12.36 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	MINUTES 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
10.00	.5708	.5681	.5654	.5628	.5602	.5576	.5550	.5524	.5498	.5472	.5447	.5422
11.00	.5396	.5371	.5346	.5321	.5296	.5272	.5247	.5223	.5198	.5174	.5150	.5126
12.00	.5102	.5078	.5055	.5031	.5007	.4984	.4961	.4938	.4915	.4892	.4869	.4846
13.00	.4824	.4801	.4779	.4757	.4734	.4712	.4690	.4668	.4647	.4625	.4603	.4582
14.00	.4561	.4539	.4518	.4497	.4476	.4455	.4435	.4414	.4393	.4373	.4352	.4332
15.00	.4312	.4292	.4272	.4252	.4232	.4212	.4193	.4173	.4154	.4134	.4115	.4096
16.00	.4077	.4058	.4039	.4020	.4001	.3983	.3964	.3946	.3927	.3909	.3891	.3873
17.00	.3854	.3836	.3819	.3801	.3783	.3765	.3748	.3730	.3713	.3696	.3678	.3661
18.00	.3644	.3627	.3610	.3594	.3577	.3560	.3543	.3527	.3511	.3494	.3478	.3462
19.00	.3445	.3429	.3413	.3398	.3382	.3366	.3350	.3335	.3319	.3304	.3288	.3273
20.00	.3258	.3242	.3227	.3212	.3197	.3182	.3168	.3153	.3138	.3123	.3109	.3094
21.00	.3080	.3066	.3051	.3037	.3023	.3009	.2995	.2981	.2967	.2953	.2939	.2926
22.00	.2912	.2898	.2885	.2871	.2858	.2845	.2831	.2818	.2805	.2792	.2779	.2766
23.00	.2753	.2740	.2728	.2715	.2702	.2690	.2677	.2665	.2652	.2640	.2627	.2615
24.00	.2603	.2591	.2579	.2567	.2555	.2543	.2531	.2519	.2507	.2496	.2484	.2473
25.00	.2461	.2450	.2438	.2427	.2415	.2404	.2393	.2382	.2371	.2360	.2349	.2338
26.00	.2327	.2316	.2305	.2294	.2284	.2273	.2262	.2252	.2241	.2231	.2221	.2210
27.00	.2200	.2190	.2179	.2169	.2159	.2149	.2139	.2129	.2119	.2109	.2099	.2090
28.00	.2080	.2070	.2061	.2051	.2041	.2032	.2022	.2013	.2004	.1994	.1985	.1976
29.00	.1967	.1957	.1948	.1939	.1930	.1921	.1912	.1903	.1894	.1886	.1877	.1868
30.00	.1859	.1851	.1842	.1833	.1825	.1816	.1808	.1799	.1791	.1783	.1774	.1766
31.00	.1758	.1750	.1742	.1733	.1725	.1717	.1709	.1701	.1693	.1685	.1678	.1670
32.00	.1662	.1654	.1647	.1639	.1631	.1624	.1616	.1609	.1601	.1594	.1586	.1579
33.00	.1571	.1564	.1557	.1549	.1542	.1535	.1528	.1521	.1514	.1507	.1500	.1493
34.00	.1486	.1479	.1472	.1465	.1458	.1451	.1445	.1438	.1431	.1424	.1418	.1411
35.00	.1405	.1398	.1392	.1385	.1379	.1372	.1366	.1359	.1353	.1347	.1341	.1334
36.00	.1328	.1322	.1316	.1310	.1303	.1297	.1291	.1285	.1279	.1273	.1267	.1262
37.00	.1256	.1250	.1244	.1238	.1232	.1227	.1221	.1215	.1210	.1204	.1198	.1193
38.00	.1187	.1182	.1176	.1171	.1165	.1160	.1154	.1149	.1144	.1138	.1133	.1128
39.00	.1122	.1117	.1112	.1107	.1102	.1096	.1091	.1086	.1081	.1076	.1071	.1066
40.00	.1061	.1056	.1051	.1046	.1042	.1037	.1032	.1027	.1022	.1017	.1013	.1008
41.00	.1003	.0999	.0994	.0989	.0985	.0980	.0976	.0971	.0966	.0962	.0958	.0953
42.00	.0949	.0944	.0940	.0935	.0931	.0927	.0922	.0918	.0914	.0910	.0905	.0901
43.00	.0897	.0893	.0889	.0884	.0880	.0876	.0872	.0868	.0864	.0860	.0856	.0852
44.00	.0848	.0844	.0840	.0836	.0832	.0828	.0825	.0821	.0817	.0813	.0809	.0805
45.00	.0802	.0798	.0794	.0791	.0787	.0783	.0780	.0776	.0772	.0769	.0765	.0762

CA - 45

HALF-LIFE 165.00 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9958	.9916	.9875	.9833	.9792	.9751	.9710	.9670	.9629	.9589	.9548
12.00	.9508	.9469	.9429	.9389	.9350	.9311	.9272	.9233	.9194	.9156	.9117	.9079
24.00	.9041	.9003	.8965	.8928	.8890	.8853	.8816	.8779	.8742	.8706	.8669	.8633
36.00	.8596	.8560	.8525	.8489	.8453	.8418	.8383	.8347	.8312	.8278	.8243	.8208
48.00	.8174	.8140	.8105	.8072	.8038	.8004	.7970	.7937	.7904	.7871	.7838	.7805
60.00	.7772	.7739	.7707	.7675	.7643	.7610	.7579	.7547	.7515	.7484	.7452	.7421
72.00	.7390	.7359	.7328	.7297	.7267	.7236	.7206	.7176	.7146	.7116	.7086	.7056
84.00	.7027	.6997	.6968	.6939	.6910	.6881	.6852	.6823	.6794	.6766	.6738	.6709
96.00	.6681	.6653	.6625	.6598	.6570	.6542	.6515	.6488	.6460	.6433	.6406	.6379
108.00	.6353	.6326	.6300	.6273	.6247	.6221	.6195	.6169	.6143	.6117	.6091	.6066

CA - 45

HALF-LIFE 165.00 DAYS — CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
120.00	.6040	.6015	.5990	.5965	.5940	.5915	.5890	.5865	.5841	.5816	.5792	.5768
132.00	.5743	.5719	.5695	.5672	.5648	.5624	.5601	.5577	.5554	.5530	.5507	.5484
144.00	.5461	.5438	.5415	.5393	.5370	.5348	.5325	.5303	.5281	.5259	.5236	.5215
156.00	.5193	.5171	.5149	.5128	.5106	.5085	.5063	.5042	.5021	.5000	.4979	.4958
168.00	.4937	.4917	.4896	.4876	.4855	.4835	.4814	.4794	.4774	.4754	.4734	.4714
180.00	.4695	.4675	.4655	.4636	.4616	.4597	.4578	.4559	.4540	.4520	.4502	.4483
192.00	.4464	.4445	.4427	.4408	.4389	.4371	.4353	.4335	.4316	.4298	.4280	.4262
204.00	.4244	.4227	.4209	.4191	.4174	.4156	.4139	.4121	.4104	.4087	.4070	.4053
216.00	.4036	.4019	.4002	.3985	.3969	.3952	.3935	.3919	.3902	.3886	.3870	.3854
228.00	.3837	.3821	.3805	.3789	.3773	.3758	.3742	.3726	.3711	.3695	.3679	.3664
240.00	.3649	.3633	.3618	.3603	.3588	.3573	.3558	.3543	.3528	.3513	.3499	.3484
252.00	.3469	.3455	.3440	.3426	.3412	.3397	.3383	.3369	.3355	.3341	.3327	.3313
264.00	.3299	.3285	.3271	.3257	.3244	.3230	.3217	.3203	.3190	.3176	.3163	.3150
276.00	.3137	.3123	.3110	.3097	.3084	.3071	.3059	.3046	.3033	.3020	.3008	.2995
288.00	.2982	.2970	.2957	.2945	.2933	.2920	.2908	.2896	.2884	.2872	.2860	.2848
300.00	.2836	.2824	.2812	.2800	.2789	.2777	.2765	.2754	.2742	.2731	.2719	.2708
312.00	.2696	.2685	.2674	.2663	.2651	.2640	.2629	.2618	.2607	.2596	.2585	.2575
324.00	.2564	.2553	.2542	.2532	.2521	.2511	.2500	.2490	.2479	.2469	.2458	.2448
336.00	.2438	.2428	.2417	.2407	.2397	.2387	.2377	.2367	.2357	.2347	.2337	.2328
348.00	.2318	.2308	.2299	.2289	.2279	.2270	.2260	.2251	.2241	.2232	.2223	.2213
360.00	.2204	.2195	.2186	.2176	.2167	.2158	.2149	.2140	.2131	.2122	.2113	.2104
372.00	.2096	.2087	.2078	.2069	.2061	.2052	.2043	.2035	.2026	.2018	.2009	.2001
384.00	.1993	.1984	.1976	.1968	.1959	.1951	.1943	.1935	.1927	.1919	.1911	.1903
396.00	.1895	.1887	.1879	.1871	.1863	.1855	.1847	.1840	.1832	.1824	.1817	.1809
408.00	.1802	.1794	.1786	.1779	.1771	.1764	.1757	.1749	.1742	.1735	.1727	.1720
420.00	.1713	.1706	.1699	.1691	.1684	.1677	.1670	.1663	.1656	.1649	.1642	.1636
432.00	.1629	.1622	.1615	.1608	.1602	.1595	.1588	.1582	.1575	.1568	.1562	.1555
444.00	.1549	.1542	.1536	.1529	.1523	.1516	.1510	.1504	.1497	.1491	.1485	.1479
456.00	.1473	.1466	.1460	.1454	.1448	.1442	.1436	.1430	.1424	.1418	.1412	.1406
468.00	.1400	.1394	.1388	.1383	.1377	.1371	.1365	.1360	.1354	.1348	.1343	.1337
480.00	.1331	.1326	.1320	.1315	.1309	.1304	.1298	.1293	.1287	.1282	.1277	.1271
492.00	.1266	.1261	.1255	.1250	.1245	.1240	.1234	.1229	.1224	.1219	.1214	.1209
504.00	.1204	.1199	.1194	.1189	.1184	.1179	.1174	.1169	.1164	.1159	.1154	.1149
516.00	.1144	.1140	.1135	.1130	.1125	.1121	.1116	.1111	.1107	.1102	.1097	.1093
528.00	.1088	.1084	.1079	.1075	.1070	.1066	.1061	.1057	.1052	.1048	.1043	.1039
540.00	.1035	.1030	.1026	.1022	.1017	.1013	.1009	.1005	.1000	.0996	.0992	.0988
552.00	.0984	.0980	.0976	.0972	.0967	.0963	.0959	.0955	.0951	.0947	.0943	.0939
564.00	.0935	.0932	.0928	.0924	.0920	.0916	.0912	.0908	.0905	.0901	.0897	.0893
576.00	.0889	.0886	.0882	.0878	.0875	.0871	.0867	.0864	.0860	.0856	.0853	.0849
588.00	.0846	.0842	.0839	.0835	.0832	.0828	.0825	.0821	.0818	.0814	.0811	.0808
600.00	.0804	.0801	.0797	.0794	.0791	.0787	.0784	.0781	.0778	.0774	.0771	.0768

CA - 47

HALF-LIFE 4.54 DAYS — CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
0.00	1.0000	.9968	.9937	.9905	.9874	.9842	.9811	.9780	.9749	.9718	.9687	.9656
.25	.9626	.9595	.9564	.9534	.9504	.9474	.9444	.9414	.9384	.9354	.9324	.9295
.50	.9265	.9236	.9206	.9177	.9148	.9119	.9090	.9061	.9032	.9004	.8975	.8946
.75	.8918	.8890	.8862	.8833	.8805	.8777	.8749	.8722	.8694	.8666	.8639	.8611
1.00	.8584	.8557	.8530	.8503	.8476	.8449	.8422	.8395	.8368	.8342	.8315	.8289

HALF-LIFE 4.54 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
1.25	.8263	.8236	.8210	.8184	.8158	.8132	.8106	.8081	.8055	.8029	.8004	.7979
1.50	.7953	.7928	.7903	.7878	.7853	.7828	.7803	.7778	.7753	.7729	.7704	.7680
1.75	.7655	.7631	.7607	.7583	.7559	.7535	.7511	.7487	.7463	.7439	.7416	.7392
2.00	.7369	.7345	.7322	.7299	.7275	.7252	.7229	.7206	.7184	.7161	.7138	.7115
2.25	.7093	.7070	.7048	.7025	.7003	.6981	.6959	.6937	.6914	.6893	.6871	.6849
2.50	.6827	.6805	.6784	.6762	.6741	.6719	.6698	.6677	.6656	.6634	.6613	.6592
2.75	.6571	.6551	.6530	.6509	.6488	.6468	.6447	.6427	.6406	.6386	.6366	.6345
3.00	.6325	.6305	.6285	.6265	.6245	.6226	.6206	.6186	.6166	.6147	.6127	.6108
3.25	.6088	.6069	.6050	.6031	.6011	.5992	.5973	.5954	.5935	.5917	.5898	.5879
3.50	.5860	.5842	.5823	.5805	.5786	.5768	.5750	.5731	.5713	.5695	.5677	.5659
3.75	.5641	.5623	.5605	.5587	.5570	.5552	.5534	.5517	.5499	.5482	.5464	.5447
4.00	.5430	.5412	.5395	.5378	.5361	.5344	.5327	.5310	.5293	.5276	.5260	.5243
4.25	.5226	.5210	.5193	.5177	.5160	.5144	.5128	.5111	.5095	.5079	.5063	.5047
4.50	.5031	.5015	.4999	.4983	.4967	.4951	.4936	.4920	.4904	.4889	.4873	.4858
4.75	.4842	.4827	.4812	.4796	.4781	.4766	.4751	.4736	.4721	.4706	.4691	.4676
5.00	.4661	.4646	.4631	.4617	.4602	.4587	.4573	.4558	.4544	.4529	.4515	.4501
5.25	.4486	.4472	.4458	.4444	.4430	.4416	.4402	.4388	.4374	.4360	.4346	.4332
5.50	.4318	.4305	.4291	.4277	.4264	.4250	.4237	.4223	.4210	.4196	.4183	.4170
5.75	.4157	.4143	.4130	.4117	.4104	.4091	.4078	.4065	.4052	.4039	.4026	.4014
6.00	.4001	.3988	.3976	.3963	.3950	.3938	.3925	.3913	.3900	.3888	.3876	.3963
6.25	.3851	.3839	.3827	.3815	.3802	.3790	.3778	.3766	.3754	.3742	.3731	.3719
6.50	.3707	.3695	.3683	.3672	.3660	.3648	.3637	.3625	.3614	.3602	.3591	.3579
6.75	.3568	.3557	.3545	.3534	.3523	.3512	.3501	.3490	.3478	.3467	.3456	.3445
7.00	.3434	.3424	.3413	.3402	.3391	.3380	.3370	.3359	.3348	.3338	.3327	.3316
7.25	.3306	.3295	.3285	.3274	.3264	.3254	.3243	.3233	.3223	.3213	.3202	.3192
7.50	.3182	.3172	.3162	.3152	.3142	.3132	.3122	.3112	.3102	.3092	.3082	.3073
7.75	.3063	.3053	.3043	.3034	.3024	.3015	.3005	.2995	.2986	.2976	.2967	.2958
8.00	.2948	.2939	.2929	.2920	.2911	.2902	.2892	.2883	.2874	.2865	.2856	.2847
8.25	.2838	.2829	.2820	.2811	.2802	.2793	.2784	.2775	.2766	.2758	.2749	.2740
8.50	.2731	.2723	.2714	.2706	.2697	.2688	.2680	.2671	.2663	.2654	.2646	.2638
8.75	.2629	.2621	.2613	.2604	.2596	.2588	.2579	.2571	.2563	.2555	.2547	.2539
9.00	.2531	.2523	.2515	.2507	.2499	.2491	.2483	.2475	.2467	.2459	.2451	.2444
9.25	.2436	.2428	.2421	.2413	.2405	.2398	.2390	.2382	.2375	.2367	.2360	.2352
9.50	.2345	.2337	.2330	.2322	.2315	.2308	.2300	.2293	.2286	.2279	.2271	.2264
9.75	.2257	.2250	.2243	.2235	.2228	.2221	.2214	.2207	.2200	.2193	.2186	.2179
10.00	.2172	.2165	.2159	.2152	.2145	.2138	.2131	.2125	.2118	.2111	.2104	.2098
10.25	.2091	.2084	.2078	.2071	.2065	.2058	.2052	.2045	.2039	.2032	.2026	.2019
10.50	.2013	.2006	.2000	.1994	.1987	.1981	.1975	.1968	.1962	.1956	.1950	.1944
10.75	.1937	.1931	.1925	.1919	.1913	.1907	.1901	.1895	.1889	.1883	.1877	.1871
11.00	.1865	.1859	.1853	.1847	.1841	.1835	.1830	.1824	.1818	.1812	.1806	.1801
11.25	.1795	.1789	.1784	.1778	.1772	.1767	.1761	.1755	.1750	.1744	.1739	.1733
11.50	.1728	.1722	.1717	.1711	.1706	.1700	.1695	.1690	.1684	.1679	.1674	.1668
11.75	.1663	.1658	.1652	.1647	.1642	.1637	.1632	.1626	.1621	.1616	.1611	.1606
12.00	.1601	.1596	.1591	.1586	.1581	.1576	.1570	.1566	.1561	.1556	.1551	.1546
12.25	.1541	.1536	.1531	.1526	.1521	.1517	.1512	.1507	.1502	.1497	.1493	.1488
12.50	.1483	.1478	.1474	.1469	.1464	.1460	.1455	.1450	.1446	.1441	.1437	.1432
12.75	.1428	.1423	.1419	.1414	.1410	.1405	.1401	.1396	.1392	.1387	.1383	.1378
13.00	.1374	.1370	.1365	.1361	.1357	.1352	.1348	.1344	.1340	.1335	.1331	.1327
13.25	.1323	.1318	.1314	.1310	.1306	.1302	.1298	.1294	.1289	.1285	.1281	.1277
13.50	.1273	.1269	.1265	.1261	.1257	.1253	.1249	.1245	.1241	.1237	.1233	.1229
13.75	.1225	.1222	.1218	.1214	.1210	.1206	.1202	.1198	.1195	.1191	.1187	.1183
14.00	.1180	.1176	.1172	.1168	.1165	.1161	.1157	.1154	.1150	.1146	.1143	.1139
14.25	.1135	.1132	.1128	.1125	.1121	.1117	.1114	.1110	.1107	.1103	.1100	.1096
14.50	.1093	.1089	.1086	.1082	.1079	.1076	.1072	.1069	.1065	.1062	.1059	.1055
14.75	.1052	.1049	.1045	.1042	.1039	.1035	.1032	.1029	.1025	.1022	.1019	.1016

CA - 47

HALF-LIFE 4.54 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
					HOURS							
15.00	.1013	.1009	.1006	.1003	.1000	.0997	.0993	.0990	.0987	.0984	.0981	.0978
15.25	.0975	.0972	.0968	.0965	.0962	.0959	.0956	.0953	.0950	.0947	.0944	.0941
15.50	.0938	.0935	.0932	.0929	.0926	.0923	.0920	.0917	.0915	.0912	.0909	.0906
15.75	.0903	.0900	.0897	.0894	.0892	.0889	.0886	.0883	.0880	.0877	.0875	.0872
16.00	.0869	.0866	.0864	.0861	.0858	.0855	.0853	.0850	.0847	.0845	.0842	.0839
16.25	.0837	.0834	.0831	.0829	.0826	.0823	.0821	.0818	.0816	.0813	.0810	.0808
16.50	.0805	.0803	.0800	.0798	.0795	.0793	.0790	.0788	.0785	.0783	.0780	.0778

SC - 46

HALF-LIFE 83.90 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
					HOURS							
0.00	1.0000	.9972	.9945	.9918	.9890	.9863	.9836	.9809	.9782	.9755	.9728	.9702
4.00	.9675	.9648	.9622	.9595	.9569	.9543	.9516	.9490	.9464	.9438	.9412	.9386
8.00	.9360	.9335	.9309	.9283	.9258	.9232	.9207	.9182	.9156	.9131	.9106	.9081
12.00	.9056	.9031	.9006	.8982	.8957	.8932	.8908	.8883	.8859	.8834	.8810	.8786
16.00	.8762	.8738	.8714	.8690	.8666	.8642	.8618	.8595	.8571	.8547	.8524	.8500
20.00	.8477	.8454	.8430	.8407	.8384	.8361	.8338	.8315	.8292	.8269	.8247	.8224
24.00	.8201	.8179	.8156	.8134	.8112	.8089	.8067	.8045	.8023	.8001	.7979	.7957
28.00	.7935	.7913	.7891	.7870	.7848	.7826	.7805	.7783	.7762	.7741	.7719	.7698
32.00	.7677	.7656	.7635	.7614	.7593	.7572	.7551	.7530	.7510	.7489	.7468	.7448
36.00	.7427	.7407	.7387	.7366	.7346	.7326	.7306	.7286	.7265	.7246	.7226	.7206
40.00	.7186	.7166	.7146	.7127	.7107	.7088	.7068	.7049	.7029	.7010	.6991	.6971
44.00	.6952	.6933	.6914	.6895	[illegible]	.6857	.6838	.6820	.6801	.6782	.6763	.6745
48.00	.6726	.6708	.6689	.6671	[illegible]	.6634	.6616	.6598	.6580	.6562	.6544	.6526
52.00	.6508	.6490	.6472	.6454	.6436	.6419	.6401	.6383	.6366	.6348	.6331	.6313
56.00	.6296	.6279	.6262	.6244	.6227	.6210	.6193	.6176	.6159	.6142	.6125	.6108
60.00	.6091	.6075	.6058	.6041	.6025	.6008	.5992	.5975	.5959	.5942	.5926	.5910
64.00	.5893	.5877	.5861	.5845	.5829	.5813	.5797	.5781	.5765	.5749	.5733	.5718
68.00	.5702	.5686	.5671	.5655	.5639	.5624	.5608	.5593	.5578	.5562	.5547	.5532
72.00	.5517	.5501	.5486	.5471	.5456	.5441	.5426	.5411	.5396	.5381	.5367	.5352
76.00	.5337	.5323	.5308	.5293	.5279	.5264	.5250	.5235	.5221	.5207	.5192	.5178
80.00	.5164	.5150	.5135	.5121	.5107	.5093	.5079	.5065	.5051	.5037	.5023	.5010
84.00	.4996	.4982	.4968	.4955	.4941	.4928	.4914	.4900	.4887	.4874	.4860	.4847
88.00	.4833	.4820	.4807	.4794	.4781	.4767	.4754	.4741	.4728	.4715	.4702	.4689
92.00	.4676	.4663	.4651	.4638	.4625	.4612	.4600	.4587	.4574	.4562	.4549	.4537
96.00	.4524	.4512	.4499	.4487	.4475	.4462	.4450	.4438	.4426	.4414	.4401	.4389
100.00	.4377	.4365	.4353	.4341	.4329	.4317	.4306	.4294	.4282	.4270	.4258	.4247
104.00	.4235	.4223	.4212	.4200	.4189	.4177	.4166	.4154	.4143	.4131	.4120	.4109
108.00	.4097	.4086	.4075	.4064	.4052	.4041	.4030	.4019	.4008	.3997	.3986	.3975
112.00	.3964	.3953	.3942	.3932	.3921	.3910	.3899	.3888	.3878	.3867	.3856	.3846
116.00	.3835	.3825	.3814	.3804	.3793	.3783	.3772	.3762	.3752	.3741	.3731	.3721
120.00	.3711	.3700	.3690	.3680	.3670	.3660	.3650	.3640	.3630	.3620	.3610	.3600
124.00	.3590	.3580	.3570	.3560	.3551	.3541	.3531	.3521	.3512	.3502	.3492	.3483
128.00	.3473	.3464	.3454	.3445	.3435	.3426	.3416	.3407	.3398	.3388	.3379	.3370
132.00	.3360	.3351	.3342	.3333	.3324	.3314	.3305	.3296	.3287	.3278	.3269	.3260
136.00	.3251	.3242	.3233	.3224	.3216	.3207	.3198	.3189	.3180	.3172	.3163	.3154
140.00	.3145	.3137	.3128	.3120	.3111	.3102	.3094	.3085	.3077	.3068	.3060	.3052
144.00	.3043	.3035	.3027	.3018	.3010	.3002	.2993	.2985	.2977	.2969	.2961	.2952
148.00	.2944	.2936	.2928	.2920	.2912	.2904	.2896	.2888	.2880	.2872	.2864	.2856
152.00	.2849	.2841	.2833	.2825	.2817	.2810	.2802	.2794	.2787	.2779	.2771	.2764
156.00	.2756	.2748	.2741	.2733	.2726	.2718	.2711	.2703	.2696	.2689	.2681	.2674

SC - 46 -

HALF-LIFE 83.90 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
160.00	.2666	.2659	.2652	.2644	.2637	.2630	.2623	.2615	.2608	.2601	.2594	.2587
164.00	.2580	.2573	.2566	.2559	.2551	.2544	.2537	.2530	.2524	.2517	.2510	.2503
168.00	.2496	.2489	.2482	.2475	.2469	.2462	.2455	.2448	.2441	.2435	.2428	.2421
172.00	.2415	.2408	.2401	.2395	.2388	.2382	.2375	.2369	.2362	.2356	.2349	.2343
176.00	.2336	.2330	.2323	.2317	.2311	.2304	.2298	.2292	.2285	.2279	.2273	.2267
180.00	.2260	.2254	.2248	.2242	.2236	.2229	.2223	.2217	.2211	.2205	.2199	.2193
184.00	.2187	.2181	.2175	.2169	.2163	.2157	.2151	.2145	.2139	.2133	.2127	.2122
188.00	.2116	.2110	.2104	.2098	.2093	.2087	.2081	.2075	.2070	.2064	.2058	.2053
192.00	.2047	.2041	.2036	.2030	.2025	.2019	.2013	.2008	.2002	.1997	.1991	.1986
196.00	.1980	.1975	.1970	.1964	.1959	.1953	.1948	.1943	.1937	.1932	.1927	.1921
200.00	.1916	.1911	.1906	.1900	.1895	.1890	.1885	.1879	.1874	.1869	.1864	.1859
204.00	.1854	.1849	.1844	.1839	.1833	.1828	.1823	.1818	.1813	.1808	.1803	.1798
208.00	.1794	.1789	.1784	.1779	.1774	.1769	.1764	.1759	.1754	.1750	.1745	.1740
212.00	.1735	.1730	.1726	.1721	.1716	.1711	.1707	.1702	.1697	.1693	.1688	.1683
216.00	.1679	.1674	.1670	.1665	.1660	.1656	.1651	.1647	.1642	.1638	.1633	.1629
220.00	.1624	.1620	.1615	.1611	.1606	.1602	.1598	.1593	.1589	.1584	.1580	.1576
224.00	.1571	.1567	.1563	.1559	.1554	.1550	.1546	.1541	.1537	.1533	.1529	.1525
228.00	.1520	.1516	.1512	.1508	.1504	.1500	.1495	.1491	.1487	.1483	.1479	.1475
232.00	.1471	.1467	.1463	.1459	.1455	.1451	.1447	.1443	.1439	.1435	.1431	.1427
236.00	.1423	.1419	.1415	.1411	.1408	.1404	.1400	.1396	.1392	.1388	.1384	.1381
240.00	.1377	.1373	.1369	.1366	.1362	.1358	.1354	.1351	.1347	.1343	.1339	.1336
244.00	.1332	.1328	.1325	.1321	.1318	.1314	.1310	.1307	.1303	.1299	.1296	.1292
248.00	.1289	.1285	.1282	.1278	.1275	.1271	.1268	.1264	.1261	.1257	.1254	.1250
252.00	.1247	.1243	.1240	.1237	.1233	.1230	.1226	.1223	.1220	.1216	.1213	.1210
256.00	.1206	.1203	.1200	.1196	.1193	.1190	.1187	.1183	.1180	.1177	.1174	.1170
260.00	.1167	.1164	.1161	.1158	.1154	.1151	.1148	.1145	.1142	.1139	.1135	.1132
264.00	.1129	.1126	.1123	.1120	.1117	.1114	.1111	.1108	.1105	.1102	.1099	.1096
268.00	.1093	.1090	.1087	.1084	.1081	.1078	.1075	.1072	.1069	.1066	.1063	.1060
272.00	.1057	.1054	.1051	.1048	.1045	.1043	.1040	.1037	.1034	.1031	.1028	.1025
276.00	.1023	.1020	.1017	.1014	.1011	.1009	.1006	.1003	.1000	.0998	.0995	.0992
280.00	.0989	.0987	.0984	.0981	.0979	.0976	.0973	.0971	.0968	.0965	.0963	.0960
284.00	.0957	.0955	.0952	.0949	.0947	.0944	.0942	.0939	.0936	.0934	.0931	.0929
288.00	.0926	.0924	.0921	.0918	.0916	.0913	.0911	.0908	.0906	.0903	.0901	.0898
292.00	.0896	.0894	.0891	.0889	.0886	.0884	.0881	.0879	.0876	.0874	.0872	.0869
296.00	.0867	.0865	.0862	.0860	.0857	.0855	.0853	.0850	.0848	.0846	.0843	.0841
300.00	.0839	.0836	.0834	.0832	.0830	.0827	.0825	.0823	.0820	.0818	.0816	.0814
304.00	.0811	.0809	.0807	.0805	.0803	.0800	.0798	.0796	.0794	.0792	.0789	.0787

CR - 51

HALF-LIFE 27.80 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	HOURS 0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
0.00	1.0000	.9938	.9876	.9815	.9754	.9693	.9633	.9573	.9514	.9454	.9396	.9337
3.00	.9279	.9222	.9164	.9107	.9051	.8995	.8939	.8883	.8828	.8773	.8719	.8664
6.00	.8611	.8557	.8504	.8451	.8398	.8346	.8294	.8243	.8192	.8141	.8090	.8040
9.00	.7990	.7940	.7891	.7842	.7793	.7745	.7697	.7649	.7601	.7554	.7507	.7460
12.00	.7414	.7368	.7322	.7277	.7232	.7187	.7142	.7098	.7053	.7010	.6966	.6923
15.00	.6880	.6837	.6795	.6752	.6710	.6669	.6627	.6586	.6545	.6504	.6464	.6424
18.00	.6384	.6344	.6305	.6266	.6227	.6188	.6150	.6111	.6073	.6036	.5998	.5961
21.00	.5924	.5887	.5850	.5814	.5778	.5742	.5706	.5671	.5636	.5601	.5566	.5531
24.00	.5497	.5463	.5429	.5395	.5362	.5328	.5295	.5262	.5230	.5197	.5165	.5133
27.00	.5101	.5069	.5038	.5006	.4975	.4944	.4913	.4883	.4853	.4822	.4792	.4763

CR - 51

HALF-LIFE 27.80 DAYS CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
30.00	.4733	.4704	.4674	.4645	.4617	.4588	.4559	.4531	.4503	.4475	.4447	.4419
33.00	.4392	.4365	.4338	.4311	.4284	.4257	.4231	.4204	.4178	.4152	.4127	.4101
36.00	.4075	.4050	.4025	.4000	.3975	.3950	.3926	.3901	.3877	.3853	.3829	.3805
39.00	.3782	.3758	.3735	.3712	.3689	.3666	.3643	.3620	.3598	.3575	.3553	.3531
42.00	.3509	.3487	.3466	.3444	.3423	.3402	.3380	.3359	.3338	.3318	.3297	.3277
45.00	.3256	.3236	.3216	.3196	.3176	.3156	.3137	.3117	.3098	.3079	.3059	.3040
48.00	.3022	.3003	.2984	.2966	.2947	.2929	.2911	.2893	.2875	.2857	.2839	.2821
51.00	.2804	.2786	.2769	.2752	.2735	.2718	.2701	.2684	.2667	.2651	.2634	.2618
54.00	.2602	.2586	.2570	.2554	.2538	.2522	.2506	.2491	.2475	.2460	.2445	.2429
57.00	.2414	.2399	.2384	.2370	.2355	.2340	.2326	.2311	.2297	.2283	.2268	.2254
60.00	.2240	.2226	.2212	.2199	.2185	.2171	.2158	.2145	.2131	.2118	.2105	.2092
63.00	.2079	.2066	.2053	.2040	.2028	.2015	.2002	.1990	.1978	.1965	.1953	.1941
66.00	.1929	.1917	.1905	.1893	.1881	.1870	.1858	.1847	.1835	.1824	.1812	.1801
69.00	.1790	.1779	.1768	.1757	.1746	.1735	.1724	.1714	.1703	.1692	.1682	.1671
72.00	.1661	.1651	.1640	.1630	.1620	.1610	.1600	.1590	.1580	.1570	.1561	.1551
75.00	.1541	.1532	.1522	.1513	.1503	.1494	.1485	.1475	.1466	.1457	.1448	.1439
78.00	.1430	.1421	.1412	.1404	.1395	.1386	.1378	.1369	.1361	.1352	.1344	.1335
81.00	.1327	.1319	.1311	.1302	.1294	.1286	.1278	.1270	.1263	.1255	.1247	.1239
84.00	.1231	.1224	.1216	.1209	.1201	.1194	.1186	.1179	.1172	.1164	.1157	.1150
87.00	.1143	.1136	.1129	.1122	.1115	.1108	.1101	.1094	.1087	.1080	.1074	.1067
90.00	.1060	.1054	.1047	.1041	.1034	.1028	.1021	.1015	.1009	.1002	.0996	.0990
93.00	.0984	.0978	.0972	.0966	.0960	.0954	.0948	.0942	.0936	.0930	.0924	.0919
96.00	.0913	.0907	.0902	.0896	.0891	.0885	.0879	.0874	.0869	.0863	.0858	.0852
99.00	.0847	.0842	.0837	.0832	.0826	.0821	.0816	.0811	.0806	.0801	.0796	.0791
102.00	.0786	.0781	.0776	.0772	.0767	.0762	.0757	.0753	.0748	.0743	.0739	.0734
105.00	.0729	.0725	.0720	.0716	.0712	.0707	.0703	.0698	.0694	.0690	.0685	.0681
108.00	.0677	.0673	.0669	.0664	.0660	.0656	.0652	.0648	.0644	.0640	.0636	.0632
111.00	.0628	.0624	.0620	.0616	.0613	.0609	.0605	.0601	.0598	.0594	.0590	.0586
114.00	.0583	.0579	.0576	.0572	.0569	.0565	.0561	.0558	.0555	.0551	.0548	.0544
117.00	.0541	.0537	.0534	.0531	.0528	.0524	.0521	.0518	.0515	.0511	.0508	.0505
120.00	.0502	.0499	.0496	.0493	.0490	.0486	.0483	.0480	.0477	.0474	.0472	.0469
123.00	.0466	.0463	.0460	.0457	.0454	.0451	.0449	.0446	.0443	.0440	.0438	.0435
126.00	.0432	.0429	.0427	.0424	.0421	.0419	.0416	.0414	.0411	.0409	.0406	.0403
129.00	.0401	.0398	.0396	.0394	.0391	.0389	.0386	.0384	.0381	.0379	.0377	.0374
132.00	.0372	.0370	.0367	.0365	.0363	.0361	.0358	.0356	.0354	.0352	.0350	.0347
135.00	.0345	.0343	.0341	.0339	.0337	.0335	.0333	.0331	.0328	.0326	.0324	.0322
138.00	.0320	.0318	.0316	.0314	.0313	.0311	.0309	.0307	.0305	.0303	.0301	.0299
141.00	.0297	.0295	.0294	.0292	.0290	.0288	.0286	.0285	.0283	.0281	.0279	.0278
144.00	.0276	.0274	.0272	.0271	.0269	.0267	.0266	.0264	.0262	.0261	.0259	.0258
147.00	.0256	.0254	.0253	.0251	.0250	.0248	.0247	.0245	.0244	.0242	.0241	.0239
150.00	.0238	.0236	.0235	.0233	.0232	.0230	.0229	.0227	.0226	.0225	.0223	.0222
153.00	.0220	.0219	.0218	.0216	.0215	.0214	.0212	.0211	.0210	.0208	.0207	.0206
156.00	.0205	.0203	.0202	.0201	.0199	.0198	.0197	.0196	.0195	.0193	.0192	.0191
159.00	.0190	.0189	.0187	.0186	.0185	.0184	.0183	.0182	.0181	.0179	.0178	.0177
162.00	.0176	.0175	.0174	.0173	.0172	.0171	.0170	.0169	.0168	.0167	.0165	.0164
165.00	.0163	.0162	.0161	.0160	.0159	.0158	.0157	.0156	.0155	.0155	.0154	.0153
168.00	.0152	.0151	.0150	.0149	.0148	.0147	.0146	.0145	.0144	.0143	.0142	.0142
171.00	.0141	.0140	.0139	.0138	.0137	.0136	.0136	.0135	.0134	.0133	.0132	.0131
174.00	.0131	.0130	.0129	.0128	.0127	.0127	.0126	.0125	.0124	.0123	.0123	.0122
177.00	.0121	.0120	.0120	.0119	.0118	.0117	.0117	.0116	.0115	.0115	.0114	.0113
180.00	.0112	.0112	.0111	.0110	.0110	.0109	.0108	.0108	.0107	.0106	.0106	.0105
183.00	.0104	.0104	.0103	.0102	.0102	.0101	.0100	.0100	.0099	.0099	.0098	.0097
186.00	.0097	.0096	.0096	.0095	.0094	.0094	.0093	.0093	.0092	.0092	.0091	.0090
189.00	.0090	.0089	.0089	.0088	.0088	.0087	.0087	.0086	.0085	.0085	.0084	.0084
192.00	.0083	.0083	.0082	.0082	.0081	.0081	.0080	.0080	.0079	.0079	.0078	.0078

MN - 54

HALF-LIFE 303.00 DAYS CALCULATION INTERVAL 48.0 HOURS

	HOURS											
DAYS	0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9954	.9909	.9864	.9819	.9774	.9729	.9685	.9641	.9597	.9553	.9509
24.00	.9466	.9423	.9380	.9337	.9294	.9252	.9209	.9167	.9126	.9084	.9042	.9001
48.00	.8960	.8919	.8878	.8838	.8798	.8757	.8717	.8678	.8638	.8599	.8559	.8520
72.00	.8481	.8443	.8404	.8366	.8328	.8290	.8252	.8214	.8177	.8139	.8102	.8065
96.00	.8028	.7992	.7955	.7919	.7883	.7847	.7811	.7775	.7740	.7704	.7669	.7634
120.00	.7599	.7565	.7530	.7496	.7462	.7428	.7394	.7360	.7326	.7293	.7260	.7226
144.00	.7193	.7161	.7128	.7095	.7063	.7031	.6999	.6967	.6935	.6903	.6872	.6840
168.00	.6809	.6778	.6747	.6716	.6686	.6655	.6625	.6595	.6564	.6534	.6505	.6475
192.00	.6445	.6416	.6387	.6358	.6328	.6300	.6271	.6242	.6214	.6185	.6157	.6129
216.00	.6101	.6073	.6045	.6018	.5990	.5963	.5936	.5909	.5882	.5855	.5828	.5802
240.00	.5775	.5749	.5723	.5696	.5670	.5644	.5619	.5593	.5568	.5542	.5517	.5492
264.00	.5467	.5442	.5417	.5392	.5367	.5343	.5319	.5294	.5270	.5246	.5222	.5198
288.00	.5175	.5151	.5127	.5104	.5081	.5058	.5034	.5011	.4989	.4966	.4943	.4921
312.00	.4898	.4876	.4853	.4831	.4809	.4787	.4765	.4744	.4722	.4701	.4679	.4658
336.00	.4636	.4615	.4594	.4573	.4552	.4532	.4511	.4490	.4470	.4449	.4429	.4409
360.00	.4389	.4369	.4349	.4329	.4309	.4289	.4270	.4250	.4231	.4212	.4192	.4173
384.00	.4154	.4135	.4116	.4098	.4079	.4060	.4042	.4023	.4005	.3987	.3969	.3950
408.00	.3932	.3914	.3897	.3879	.3861	.3843	.3826	.3808	.3791	.3774	.3756	.3739
432.00	.3722	.3705	.3688	.3672	.3655	.3638	.3621	.3605	.3588	.3572	.3556	.3540
456.00	.3523	.3507	.3491	.3475	.3460	.3444	.3428	.3412	.3397	.3381	.3366	.3350
480.00	.3335	.3320	.3305	.3290	.3275	.3260	.3245	.3230	.3215	.3201	.3186	.3171
504.00	.3157	.3143	.3128	.3114	.3100	.3086	.3072	.3058	.3044	.3030	.3016	.3002
528.00	.2988	.2975	.2961	.2948	.2934	.2921	.2907	.2894	.2881	.2868	.2855	.2842
552.00	.2829	.2816	.2803	.2790	.2777	.2765	.2752	.2740	.2727	.2715	.2702	.2690
576.00	.2678	.2665	.2653	.2641	.2629	.2617	.2605	.2593	.2581	.2570	.2558	.2546
600.00	.2535	.2523	.2511	.2500	.2489	.2477	.2466	.2455	.2443	.2432	.2421	.2410
624.00	.2399	.2388	.2377	.2366	.2356	.2345	.2334	.2324	.2313	.2302	.2292	.2281
648.00	.2271	.2261	.2250	.2240	.2230	.2220	.2209	.2199	.2189	.2179	.2169	.2160
672.00	.2150	.2140	.2130	.2120	.2111	.2101	.2091	.2082	.2072	.2063	.2054	.2044
696.00	.2035	.2026	.2016	.2007	.1998	.1989	.1980	.1971	.1962	.1953	.1944	.1935
720.00	.1926	.1917	.1909	.1900	.1891	.1883	.1874	.1865	.1857	.1848	.1840	.1832
744.00	.1823	.1815	.1807	.1798	.1790	.1782	.1774	.1766	.1758	.1750	.1742	.1734
768.00	.1726	.1718	.1710	.1702	.1695	.1687	.1679	.1671	.1664	.1656	.1649	.1641
792.00	.1634	.1626	.1619	.1611	.1604	.1597	.1589	.1582	.1575	.1568	.1561	.1553
816.00	.1546	.1539	.1532	.1525	.1518	.1511	.1504	.1498	.1491	.1484	.1477	.1470
840.00	.1464	.1457	.1450	.1444	.1437	.1431	.1424	.1418	.1411	.1405	.1398	.1392
864.00	.1386	.1379	.1373	.1367	.1360	.1354	.1348	.1342	.1336	.1330	.1324	.1318
888.00	.1312	.1306	.1300	.1294	.1288	.1282	.1276	.1270	.1264	.1259	.1253	.1247
912.00	.1241	.1236	.1230	.1225	.1219	.1213	.1208	.1202	.1197	.1191	.1186	.1181
936.00	.1175	.1170	.1164	.1159	.1154	.1149	.1143	.1138	.1133	.1128	.1123	.1117
960.00	.1112	.1107	.1102	.1097	.1092	.1087	.1082	.1077	.1072	.1067	.1063	.1058
984.00	.1053	.1048	.1043	.1039	.1034	.1029	.1024	.1020	.1015	.1010	.1006	.1001
1008.00	.0997	.0992	.0988	.0983	.0979	.0974	.0970	.0965	.0961	.0956	.0952	.0948
1032.00	.0943	.0939	.0935	.0931	.0926	.0922	.0918	.0914	.0910	.0905	.0901	.0897
1056.00	.0893	.0889	.0885	.0881	.0877	.0873	.0869	.0865	.0861	.0857	.0853	.0849
1080.00	.0845	.0841	.0838	.0834	.0830	.0826	.0822	.0819	.0815	.0811	.0808	.0804
1104.00	.0800	.0797	.0793	.0789	.0786	.0782	.0778	.0775	.0771	.0768	.0764	.0761

FE - 55

HALF-LIFE 2.60 YEARS CALCULATION INTERVAL 5.0 DAYS

	DAYS									
DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9964	.9927	.9891	.9855	.9819	.9783	.9748	.9712	.9677
50.0	.9641	.9606	.9571	.9536	.9502	.9467	.9432	.9398	.9364	.9330
100.0	.9296	.9262	.9228	.9194	.9161	.9127	.9094	.9061	.9028	.8995
150.0	.8962	.8930	.8897	.8865	.8832	.8800	.8768	.8736	.8704	.8673
200.0	.8641	.8609	.8578	.8547	.8516	.8485	.8454	.8423	.8392	.8361
250.0	.8331	.8301	.8270	.8240	.8210	.8180	.8150	.8121	.8091	.8062
300.0	.8032	.8003	.7974	.7945	.7916	.7887	.7858	.7830	.7801	.7773
350.0	.7744	.7716	.7688	.7660	.7632	.7604	.7576	.7549	.7521	.7494
400.0	.7466	.7439	.7412	.7385	.7358	.7331	.7305	.7278	.7252	.7225
450.0	.7199	.7172	.7146	.7120	.7094	.7068	.7043	.7017	.6991	.6966
500.0	.6941	.6915	.6890	.6865	.6840	.6815	.6790	.6765	.6741	.6716
550.0	.6692	.6667	.6643	.6619	.6595	.6571	.6547	.6523	.6499	.6475
600.0	.6452	.6428	.6405	.6381	.6358	.6335	.6312	.6289	.6266	.6243
650.0	.6220	.6198	.6175	.6153	.6130	.6108	.6086	.6063	.6041	.6019
700.0	.5997	.5975	.5954	.5932	.5910	.5889	.5867	.5846	.5825	.5803
750.0	.5782	.5761	.5740	.5719	.5698	.5678	.5657	.5636	.5616	.5595
800.0	.5575	.5555	.5534	.5514	.5494	.5474	.5454	.5434	.5414	.5395
850.0	.5375	.5355	.5336	.5316	.5297	.5278	.5258	.5239	.5220	.5201
900.0	.5182	.5163	.5144	.5126	.5107	.5088	.5070	.5051	.5033	.5015
950.0	.4996	.4978	.4960	.4942	.4924	.4906	.4888	.4870	.4852	.4835
1000.0	.4817	.4800	.4782	.4765	.4747	.4730	.4713	.4696	.4678	.4661
1050.0	.4644	.4627	.4611	.4594	.4577	.4560	.4544	.4527	.4511	.4494
1100.0	.4478	.4462	.4445	.4429	.4413	.4397	.4381	.4365	.4349	.4333
1150.0	.4317	.4302	.4286	.4270	.4255	.4239	.4224	.4208	.4193	.4178
1200.0	.4162	.4147	.4132	.4117	.4102	.4087	.4072	.4057	.4043	.4028
1250.0	.4013	.3999	.3984	.3969	.3955	.3941	.3926	.3912	.3898	.3883
1300.0	.3869	.3855	.3841	.3827	.3813	.3799	.3785	.3772	.3758	.3744
1350.0	.3731	.3717	.3703	.3690	.3676	.3663	.3650	.3636	.3623	.3610
1400.0	.3597	.3584	.3571	.3558	.3545	.3532	.3519	.3506	.3493	.3480
1450.0	.3468	.3455	.3443	.3430	.3417	.3405	.3393	.3380	.3368	.3356
1500.0	.3343	.3331	.3319	.3307	.3295	.3283	.3271	.3259	.3247	.3235
1550.0	.3224	.3212	.3200	.3188	.3177	.3165	.3154	.3142	.3131	.3119
1600.0	.3108	.3097	.3085	.3074	.3063	.3052	.3041	.3029	.3018	.3007
1650.0	.2996	.2986	.2975	.2964	.2953	.2942	.2932	.2921	.2910	.2900
1700.0	.2889	.2878	.2868	.2858	.2847	.2837	.2826	.2816	.2806	.2796
1750.0	.2785	.2775	.2765	.2755	.2745	.2735	.2725	.2715	.2705	.2695
1800.0	.2686	.2676	.2666	.2656	.2647	.2637	.2627	.2618	.2608	.2599
1850.0	.2589	.2580	.2570	.2561	.2552	.2542	.2533	.2524	.2515	.2505
1900.0	.2496	.2487	.2478	.2469	.2460	.2451	.2442	.2433	.2424	.2416
1950.0	.2407	.2398	.2389	.2381	.2372	.2363	.2355	.2346	.2338	.2329
2000.0	.2321	.2312	.2304	.2295	.2287	.2279	.2270	.2262	.2254	.2245
2050.0	.2237	.2229	.2221	.2213	.2205	.2197	.2189	.2181	.2173	.2165
2100.0	.2157	.2149	.2141	.2134	.2126	.2118	.2110	.2103	.2095	.2087
2150.0	.2080	.2072	.2065	.2057	.2050	.2042	.2035	.2027	.2020	.2012
2200.0	.2005	.1998	.1991	.1983	.1976	.1969	.1962	.1955	.1947	.1940
2250.0	.1933	.1926	.1919	.1912	.1905	.1898	.1891	.1884	.1878	.1871
2300.0	.1864	.1857	.1850	.1844	.1837	.1830	.1824	.1817	.1810	.1804
2350.0	.1797	.1791	.1784	.1777	.1771	.1765	.1758	.1752	.1745	.1739
2400.0	.1733	.1726	.1720	.1714	.1707	.1701	.1695	.1689	.1683	.1677
2450.0	.1670	.1664	.1658	.1652	.1646	.1640	.1634	.1628	.1622	.1616
2500.0	.1611	.1605	.1599	.1593	.1587	.1581	.1576	.1570	.1564	.1558
2550.0	.1553	.1547	.1542	.1536	.1530	.1525	.1519	.1514	.1508	.1503
2600.0	.1497	.1492	.1486	.1481	.1475	.1470	.1465	.1459	.1454	.1449
2650.0	.1443	.1438	.1433	.1428	.1423	.1417	.1412	.1407	.1402	.1397
2700.0	.1392	.1387	.1382	.1377	.1371	.1366	.1362	.1357	.1352	.1347

FE - 55

HALF-LIFE 2.60 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
2750.0	.1342	.1337	.1332	.1327	.1322	.1317	.1313	.1308	.1303	.1298
2800.0	.1294	.1289	.1284	.1280	.1275	.1270	.1266	.1261	.1256	.1252
2850.0	.1247	.1243	.1238	.1234	.1229	.1225	.1220	.1216	.1211	.1207
2900.0	.1203	.1198	.1194	.1189	.1185	.1181	.1176	.1172	.1168	.1164
2950.0	.1159	.1155	.1151	.1147	.1143	.1138	.1134	.1130	.1126	.1122
3000.0	.1118	.1114	.1110	.1106	.1102	.1098	.1094	.1090	.1086	.1082
3050.0	.1078	.1074	.1070	.1066	.1062	.1058	.1054	.1051	.1047	.1043
3100.0	.1039	.1035	.1032	.1028	.1024	.1020	.1017	.1013	.1009	.1006
3150.0	.1002	.0998	.0995	.0991	.0987	.0984	.0980	.0977	.0973	.0969
3200.0	.0966	.0962	.0959	.0955	.0952	.0948	.0945	.0942	.0938	.0935
3250.0	.0931	.0928	.0924	.0921	.0918	.0914	.0911	.0908	.0904	.0901
3300.0	.0898	.0895	.0891	.0888	.0885	.0882	.0878	.0875	.0872	.0869
3350.0	.0866	.0863	.0859	.0856	.0853	.0850	.0847	.0844	.0841	.0838
3400.0	.0835	.0832	.0829	.0826	.0823	.0820	.0817	.0814	.0811	.0808
3450.0	.0805	.0802	.0799	.0796	.0793	.0790	.0787	.0784	.0782	.0779

FE - 59

HALF-LIFE 45.60 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9949	.9899	.9849	.9799	.9750	.9701	.9652	.9603	.9554	.9506	.9458
4.00	.9410	.9363	.9315	.9268	.9221	.9175	.9128	.9082	.9036	.8991	.8945	.8900
8.00	.8855	.8810	.8766	.8721	.8677	.8633	.8590	.8546	.8503	.8460	.8417	.8375
12.00	.8333	.8291	.8249	.8207	.8165	.8124	.8083	.8042	.8002	.7961	.7921	.7881
16.00	.7841	.7801	.7762	.7723	.7684	.7645	.7606	.7568	.7530	.7492	.7454	.7416
20.00	.7379	.7341	.7304	.7267	.7230	.7194	.7158	.7121	.7085	.7050	.7014	.6979
24.00	.6943	.6908	.6873	.6839	.6804	.6770	.6735	.6701	.6667	.6634	.6600	.6567
28.00	.6534	.6501	.6468	.6435	.6403	.6370	.6338	.6306	.6274	.6242	.6211	.6179
32.00	.6148	.6117	.6086	.6055	.6025	.5994	.5964	.5934	.5904	.5874	.5844	.5815
36.00	.5786	.5756	.5727	.5698	.5669	.5641	.5612	.5584	.5556	.5528	.5500	.5472
40.00	.5444	.5417	.5389	.5362	.5335	.5308	.5281	.5255	.5228	.5202	.5175	.5149
44.00	.5123	.5097	.5071	.5046	.5020	.4995	.4970	.4945	.4920	.4895	.4870	.4845
48.00	.4821	.4797	.4772	.4748	.4724	.4700	.4677	.4653	.4629	.4606	.4583	.4560
52.00	.4536	.4514	.4491	.4468	.4445	.4423	.4401	.4378	.4356	.4334	.4312	.4291
56.00	.4269	.4247	.4226	.4204	.4183	.4162	.4141	.4120	.4099	.4079	.4058	.4037
60.00	.4017	.3997	.3977	.3956	.3936	.3917	.3897	.3877	.3857	.3838	.3819	.3799
64.00	.3780	.3761	.3742	.3723	.3704	.3686	.3667	.3648	.3630	.3612	.3593	.3575
68.00	.3557	.3539	.3521	.3503	.3486	.3468	.3451	.3433	.3416	.3399	.3381	.3364
72.00	.3347	.3330	.3314	.3297	.3280	.3264	.3247	.3231	.3214	.3198	.3182	.3166
76.00	.3150	.3134	.3118	.3102	.3087	.3071	.3055	.3040	.3025	.3009	.2994	.2979
80.00	.2964	.2949	.2934	.2919	.2905	.2890	.2875	.2861	.2846	.2832	.2818	.2803
84.00	.2789	.2775	.2761	.2747	.2733	.2719	.2706	.2692	.2678	.2665	.2651	.2638
88.00	.2625	.2611	.2598	.2585	.2572	.2559	.2546	.2533	.2520	.2508	.2495	.2482
92.00	.2470	.2457	.2445	.2433	.2420	.2408	.2396	.2384	.2372	.2360	.2348	.2336
96.00	.2324	.2312	.2301	.2289	.2277	.2266	.2254	.2243	.2232	.2220	.2209	.2198
100.00	.2187	.2176	.2165	.2154	.2143	.2132	.2122	.2111	.2100	.2089	.2079	.2068
104.00	.2058	.2048	.2037	.2027	.2017	.2006	.1996	.1986	.1976	.1966	.1956	.1946
108.00	.1937	.1927	.1917	.1907	.1898	.1888	.1879	.1869	.1860	.1850	.1841	.1832
112.00	.1822	.1813	.1804	.1795	.1786	.1777	.1768	.1759	.1750	.1741	.1732	.1724
116.00	.1715	.1706	.1698	.1689	.1680	.1672	.1663	.1655	.1647	.1638	.1630	.1622
120.00	.1614	.1606	.1597	.1589	.1581	.1573	.1565	.1557	.1550	.1542	.1534	.1526
124.00	.1518	.1511	.1503	.1496	.1488	.1480	.1473	.1466	.1458	.1451	.1443	.1436
128.00	.1429	.1422	.1414	.1407	.1400	.1393	.1386	.1379	.1372	.1365	.1358	.1351
132.00	.1345	.1338	.1331	.1324	.1318	.1311	.1304	.1298	.1291	.1285	.1278	.1272
136.00	.1265	.1259	.1253	.1246	.1240	.1234	.1227	.1221	.1215	.1209	.1203	.1197

FE - 59

HALF-LIFE 45.60 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
140.00	.1191	.1185	.1179	.1173	.1167	.1161	.1155	.1149	.1143	.1138	.1132	.1126
144.00	.1120	.1115	.1109	.1104	.1098	.1092	.1087	.1081	.1076	.1070	.1065	.1060
148.00	.1054	.1049	.1044	.1038	.1033	.1028	.1023	.1018	.1012	.1007	.1002	.0997
152.00	.0992	.0987	.0982	.0977	.0972	.0967	.0962	.0958	.0953	.0948	.0943	.0938
156.00	.0934	.0929	.0924	.0920	.0915	.0910	.0906	.0901	.0897	.0892	.0887	.0883
160.00	.0879	.0874	.0870	.0865	.0861	.0857	.0852	.0848	.0844	.0839	.0835	.0831
164.00	.0827	.0823	.0818	.0814	.0810	.0806	.0802	.0798	.0794	.0790	.0786	.0782
168.00	.0778	.0774	.0770	.0766	.0762	.0758	.0755	.0751	.0747	.0743	.0739	.0736
172.00	.0732	.0728	.0725	.0721	.0717	.0714	.0710	.0707	.0703	.0699	.0696	.0692
176.00	.0689	.0685	.0682	.0678	.0675	.0672	.0668	.0665	.0661	.0658	.0655	.0652
180.00	.0648	.0645	.0642	.0638	.0635	.0632	.0629	.0626	.0622	.0619	.0616	.0613
184.00	.0610	.0607	.0604	.0601	.0598	.0595	.0592	.0589	.0586	.0583	.0580	.0577
188.00	.0574	.0571	.0568	.0565	.0562	.0560	.0557	.0554	.0551	.0548	.0546	.0543
192.00	.0540	.0537	.0535	.0532	.0529	.0527	.0524	.0521	.0519	.0516	.0513	.0511
196.00	.0508	.0506	.0503	.0501	.0498	.0496	.0493	.0491	.0488	.0486	.0483	.0481
200.00	.0478	.0476	.0473	.0471	.0469	.0466	.0464	.0462	.0459	.0457	.0455	.0452
204.00	.0450	.0448	.0446	.0443	.0441	.0439	.0437	.0434	.0432	.0430	.0428	.0426
208.00	.0424	.0421	.0419	.0417	.0415	.0413	.0411	.0409	.0407	.0405	.0403	.0401
212.00	.0399	.0397	.0395	.0393	.0391	.0389	.0387	.0385	.0383	.0381	.0379	.0377
216.00	.0375	.0373	.0371	.0369	.0368	.0366	.0364	.0362	.0360	.0358	.0357	.0355
220.00	.0353	.0351	.0349	.0348	.0346	.0344	.0342	.0341	.0339	.0337	.0335	.0334
224.00	.0332	.0330	.0329	.0327	.0325	.0324	.0322	.0321	.0319	.0317	.0316	.0314
228.00	.0313	.0311	.0309	.0308	.0306	.0305	.0303	.0302	.0300	.0299	.0297	.0296
232.00	.0294	.0293	.0291	.0290	.0288	.0287	.0285	.0284	.0282	.0281	.0280	.0278
236.00	.0277	.0275	.0274	.0273	.0271	.0270	.0268	.0267	.0266	.0264	.0263	.0262
240.00	.0260	.0259	.0258	.0256	.0255	.0254	.0253	.0251	.0250	.0249	.0248	.0246
244.00	.0245	.0244	.0243	.0241	.0240	.0239	.0238	.0236	.0235	.0234	.0233	.0232
248.00	.0231	.0229	.0228	.0227	.0226	.0225	.0224	.0223	.0221	.0220	.0219	.0218
252.00	.0217	.0216	.0215	.0214	.0213	.0212	.0210	.0209	.0208	.0207	.0206	.0205
256.00	.0204	.0203	.0202	.0201	.0200	.0199	.0198	.0197	.0196	.0195	.0194	.0193
260.00	.0192	.0191	.0190	.0189	.0188	.0187	.0186	.0185	.0185	.0184	.0183	.0182
264.00	.0181	.0180	.0179	.0178	.0177	.0176	.0175	.0174	.0174	.0173	.0172	.0171
268.00	.0170	.0169	.0168	.0168	.0167	.0166	.0165	.0164	.0163	.0163	.0162	.0161
272.00	.0160	.0159	.0158	.0158	.0157	.0156	.0155	.0155	.0154	.0153	.0152	.0151
276.00	.0151	.0150	.0149	.0148	.0148	.0147	.0146	.0145	.0145	.0144	.0143	.0142
280.00	.0142	.0141	.0140	.0140	.0139	.0138	.0138	.0137	.0136	.0135	.0135	.0134
284.00	.0133	.0133	.0132	.0131	.0131	.0130	.0129	.0129	.0128	.0127	.0127	.0126
288.00	.0126	.0125	.0124	.0124	.0123	.0122	.0122	.0121	.0121	.0120	.0119	.0119
292.00	.0118	.0118	.0117	.0116	.0116	.0115	.0115	.0114	.0113	.0113	.0112	.0112
296.00	.0111	.0111	.0110	.0109	.0109	.0108	.0108	.0107	.0107	.0106	.0106	.0105
300.00	.0105	.0104	.0104	.0103	.0103	.0102	.0101	.0101	.0100	.0100	.0099	.0099
304.00	.0098	.0098	.0097	.0097	.0096	.0096	.0095	.0095	.0095	.0094	.0094	.0093
308.00	.0093	.0092	.0092	.0091	.0091	.0090	.0090	.0089	.0089	.0088	.0088	.0088
312.00	.0087	.0087	.0086	.0086	.0085	.0085	.0085	.0084	.0084	.0083	.0083	.0082
316.00	.0082	.0082	.0081	.0081	.0080	.0080	.0080	.0079	.0079	.0078	.0078	.0078

CO - 57

HALF-LIFE 270.00 DAYS CALCULATION INTERVAL 48.0 HOURS

	HOURS											
DAYS	0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9949	.9898	.9847	.9797	.9747	.9697	.9647	.9598	.9548	.9500	.9451
24.00	.9402	.9354	.9306	.9259	.9211	.9164	.9117	.9071	.9024	.8978	.8932	.8886
48.00	.8841	.8795	.8750	.8706	.8661	.8617	.8572	.8529	.8485	.8441	.8398	.8355
72.00	.8312	.8270	.8227	.8185	.8143	.8102	.8060	.8019	.7978	.7937	.7896	.7856
96.00	.7816	.7776	.7736	.7696	.7657	.7618	.7579	.7540	.7501	.7463	.7425	.7387
120.00	.7349	.7311	.7274	.7236	.7199	.7162	.7126	.7089	.7053	.7017	.6981	.6945
144.00	.6910	.6874	.6839	.6804	.6769	.6734	.6700	.6666	.6632	.6598	.6564	.6530
168.00	.6497	.6463	.6430	.6397	.6365	.6332	.6300	.6267	.6235	.6203	.6172	.6140
192.00	.6108	.6077	.6046	.6015	.5984	.5954	.5923	.5893	.5863	.5833	.5803	.5773
216.00	.5743	.5714	.5685	.5656	.5627	.5598	.5569	.5541	.5512	.5484	.5456	.5428
240.00	.5400	.5373	.5345	.5318	.5291	.5263	.5236	.5210	.5183	.5156	.5130	.5104
264.00	.5078	.5052	.5026	.5000	.4974	.4949	.4924	.4898	.4873	.4848	.4823	.4799
288.00	.4774	.4750	.4725	.4701	.4677	.4653	.4629	.4606	.4582	.4559	.4535	.4512
312.00	.4489	.4466	.4443	.4420	.4398	.4375	.4353	.4330	.4308	.4286	.4264	.4242
336.00	.4221	.4199	.4178	.4156	.4135	.4114	.4093	.4072	.4051	.4030	.4009	.3989
360.00	.3969	.3948	.3928	.3908	.3888	.3868	.3848	.3828	.3809	.3789	.3770	.3751
384.00	.3731	.3712	.3693	.3674	.3656	.3637	.3618	.3600	.3581	.3563	.3545	.3526
408.00	.3508	.3490	.3473	.3455	.3437	.3419	.3402	.3385	.3367	.3350	.3333	.3316
432.00	.3299	.3282	.3265	.3248	.3232	.3215	.3199	.3182	.3166	.3150	.3134	.3118
456.00	.3102	.3086	.3070	.3054	.3039	.3023	.3008	.2992	.2977	.2962	.2946	.2931
480.00	.2916	.2901	.2887	.2872	.2857	.2842	.2828	.2813	.2799	.2785	.2770	.2756
504.00	.2742	.2728	.2714	.2700	.2686	.2673	.2659	.2645	.2632	.2618	.2605	.2591
528.00	.2578	.2565	.2552	.2539	.2526	.2513	.2500	.2487	.2474	.2462	.2449	.2437
552.00	.2424	.2412	.2399	.2387	.2375	.2363	.2351	.2339	.2327	.2315	.2303	.2291
576.00	.2279	.2268	.2256	.2244	.2233	.2222	.2210	.2199	.2188	.2176	.2165	.2154
600.00	.2143	.2132	.2121	.2110	.2100	.2089	.2078	.2067	.2057	.2046	.2036	.2025
624.00	.2015	.2005	.1994	.1984	.1974	.1964	.1954	.1944	.1934	.1924	.1914	.1904
648.00	.1895	.1885	.1875	.1866	.1856	.1847	.1837	.1828	.1818	.1809	.1800	.1791
672.00	.1781	.1772	.1763	.1754	.1745	.1736	.1727	.1719	.1710	.1701	.1692	.1684
696.00	.1675	.1666	.1658	.1649	.1641	.1633	.1624	.1616	.1608	.1599	.1591	.1583
720.00	.1575	.1567	.1559	.1551	.1543	.1535	.1527	.1519	.1512	.1504	.1496	.1488
744.00	.1481	.1473	.1466	.1458	.1451	.1443	.1436	.1429	.1421	.1414	.1407	.1399
768.00	.1392	.1385	.1378	.1371	.1364	.1357	.1350	.1343	.1336	.1329	.1323	.1316
792.00	.1309	.1302	.1296	.1289	.1283	.1276	.1269	.1263	.1256	.1250	.1244	.1237
816.00	.1231	.1225	.1218	.1212	.1206	.1200	.1194	.1187	.1181	.1175	.1169	.1163
840.00	.1157	.1151	.1146	.1140	.1134	.1128	.1122	.1116	.1111	.1105	.1099	.1094
864.00	.1088	.1083	.1077	.1072	.1066	.1061	.1055	.1050	.1044	.1039	.1034	.1028
888.00	.1023	.1018	.1013	.1008	.1002	.0997	.0992	.0987	.0982	.0977	.0972	.0967
912.00	.0962	.0957	.0952	.0947	.0942	.0938	.0933	.0928	.0923	.0919	.0914	.0909
936.00	.0905	.0900	.0895	.0891	.0886	.0882	.0877	.0873	.0868	.0864	.0859	.0855
960.00	.0850	.0846	.0842	.0837	.0833	.0829	.0825	.0820	.0816	.0812	.0808	.0804
984.00	.0800	.0796	.0792	.0787	.0783	.0779	.0775	.0771	.0767	.0764	.0760	.0756

CO - 58

HALF-LIFE 71.30 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9968	.9935	.9903	.9871	.9839	.9807	.9776	.9744	.9713	.9681	.9650
4.00	.9619	.9587	.9556	.9526	.9495	.9464	.9433	.9403	.9372	.9342	.9312	.9282
8.00	.9252	.9222	.9192	.9162	.9133	.9103	.9074	.9044	.9015	.8986	.8957	.8928
12.00	.8899	.8870	.8841	.8813	.8784	.8756	.8728	.8699	.8671	.8643	.8615	.8587
16.00	.8559	.8532	.8504	.8477	.8449	.8422	.8395	.8368	.8340	.8313	.8287	.8260
20.00	.8233	.8206	.8180	.8153	.8127	.8101	.8074	.8048	.8022	.7996	.7971	.7945
24.00	.7919	.7893	.7868	.7842	.7817	.7792	.7767	.7741	.7716	.7691	.7667	.7642
28.00	.7617	.7592	.7568	.7543	.7519	.7495	.7470	.7446	.7422	.7398	.7374	.7350
32.00	.7326	.7303	.7279	.7256	.7232	.7209	.7185	.7162	.7139	.7116	.7093	.7070
36.00	.7047	.7024	.7002	.6979	.6956	.6934	.6911	.6889	.6867	.6844	.6822	.6800
40.00	.6778	.6756	.6734	.6713	.6691	.6669	.6648	.6626	.6605	.6583	.6562	.6541
44.00	.6520	.6499	.6478	.6457	.6436	.6415	.6394	.6374	.6353	.6332	.6312	.6291
48.00	.6271	.6251	.6231	.6210	.6190	.6170	.6150	.6130	.6111	.6091	.6071	.6051
52.00	.6032	.6012	.5993	.5974	.5954	.5935	.5916	.5897	.5878	.5859	.5840	.5821
56.00	.5802	.5783	.5764	.5746	.5727	.5709	.5690	.5672	.5653	.5635	.5617	.5599
60.00	.5581	.5563	.5545	.5527	.5509	.5491	.5473	.5455	.5438	.5420	.5403	.5385
64.00	.5368	.5350	.5333	.5316	.5299	.5281	.5264	.5247	.5230	.5213	.5197	.5180
68.00	.5163	.5146	.5130	.5113	.5097	.5080	.5064	.5047	.5031	.5015	.4998	.4982
72.00	.4966	.4950	.4934	.4918	.4902	.4886	.4870	.4855	.4839	.4823	.4808	.4792
76.00	.4777	.4761	.4746	.4730	.4715	.4700	.4685	.4670	.4654	.4639	.4624	.4609
80.00	.4595	.4580	.4565	.4550	.4535	.4521	.4506	.4491	.4477	.4462	.4448	.4434
84.00	.4419	.4405	.4391	.4377	.4362	.4348	.4334	.4320	.4306	.4292	.4278	.4265
88.00	.4251	.4237	.4223	.4210	.4196	.4182	.4169	.4155	.4142	.4129	.4115	.4102
92.00	.4089	.4075	.4062	.4049	.4036	.4023	.4010	.3997	.3984	.3971	.3958	.3945
96.00	.3933	.3920	.3907	.3895	.3882	.3869	.3857	.3844	.3832	.3820	.3807	.3795
100.00	.3783	.3770	.3758	.3746	.3734	.3722	.3710	.3698	.3686	.3674	.3662	.3650
104.00	.3638	.3627	.3615	.3603	.3592	.3580	.3568	.3557	.3545	.3534	.3522	.3511
108.00	.3500	.3488	.3477	.3466	.3455	.3443	.3432	.3421	.3410	.3399	.3388	.3377
112.00	.3366	.3355	.3344	.3334	.3323	.3312	.3301	.3291	.3280	.3269	.3259	.3248
116.00	.3238	.3227	.3217	.3206	.3196	.3186	.3175	.3165	.3155	.3145	.3135	.3124
120.00	.3114	.3104	.3094	.3084	.3074	.3064	.3054	.3044	.3035	.3025	.3015	.3005
124.00	.2996	.2986	.2976	.2967	.2957	.2947	.2938	.2928	.2919	.2909	.2900	.2891
128.00	.2881	.2872	.2863	.2853	.2844	.2835	.2826	.2817	.2808	.2798	.2789	.2780
132.00	.2771	.2762	.2753	.2745	.2736	.2727	.2718	.2709	.2700	.2692	.2683	.2674
136.00	.2666	.2657	.2648	.2640	.2631	.2623	.2614	.2606	.2597	.2589	.2581	.2572
140.00	.2564	.2556	.2547	.2539	.2531	.2523	.2515	.2506	.2498	.2490	.2482	.2474
144.00	.2466	.2458	.2450	.2442	.2434	.2427	.2419	.2411	.2403	.2395	.2388	.2380
148.00	.2372	.2364	.2357	.2349	.2342	.2334	.2326	.2319	.2311	.2304	.2297	.2289
152.00	.2282	.2274	.2267	.2260	.2252	.2245	.2238	.2230	.2223	.2216	.2209	.2202
156.00	.2195	.2188	.2180	.2173	.2166	.2159	.2152	.2145	.2138	.2132	.2125	.2118
160.00	.2111	.2104	.2097	.2091	.2084	.2077	.2070	.2064	.2057	.2050	.2044	.2037
164.00	.2030	.2024	.2017	.2011	.2004	.1998	.1991	.1985	.1978	.1972	.1966	.1959
168.00	.1953	.1947	.1940	.1934	.1928	.1922	.1915	.1909	.1903	.1897	.1891	.1885
172.00	.1879	.1872	.1866	.1860	.1854	.1848	.1842	.1836	.1830	.1825	.1819	.1813
176.00	.1807	.1801	.1795	.1789	.1784	.1778	.1772	.1766	.1761	.1755	.1749	.1744
180.00	.1738	.1732	.1727	.1721	.1716	.1710	.1704	.1699	.1693	.1688	.1683	.1677
184.00	.1672	.1666	.1661	.1655	.1650	.1645	.1639	.1634	.1629	.1624	.1618	.1613
188.00	.1608	.1603	.1598	.1592	.1587	.1582	.1577	.1572	.1567	.1562	.1557	.1552
192.00	.1547	.1542	.1537	.1532	.1527	.1522	.1517	.1512	.1507	.1502	.1497	.1492
196.00	.1488	.1483	.1478	.1473	.1468	.1464	.1459	.1454	.1450	.1445	.1440	.1436
200.00	.1431	.1426	.1422	.1417	.1412	.1408	.1403	.1399	.1394	.1390	.1385	.1381
204.00	.1376	.1372	.1367	.1363	.1359	.1354	.1350	.1345	.1341	.1337	.1332	.1328
208.00	.1324	.1320	.1315	.1311	.1307	.1303	.1298	.1294	.1290	.1286	.1282	.1277
212.00	.1273	.1269	.1265	.1261	.1257	.1253	.1249	.1245	.1241	.1237	.1233	.1229
216.00	.1225	.1221	.1217	.1213	.1209	.1205	.1201	.1197	.1193	.1190	.1186	.1182

CO - 58

HALF-LIFE 71.30 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
220.00	.1178	.1174	.1170	.1167	.1163	.1159	.1155	.1152	.1148	.1144	.1140	.1137
224.00	.1133	.1129	.1126	.1122	.1119	.1115	.1111	.1108	.1104	.1101	.1097	.1093
228.00	.1090	.1086	.1083	.1079	.1076	.1072	.1069	.1065	.1062	.1059	.1055	.1052
232.00	.1048	.1045	.1042	.1038	.1035	.1031	.1028	.1025	.1021	.1018	.1015	.1012
236.00	.1008	.1005	.1002	.0999	.0995	.0992	.0989	.0986	.0983	.0979	.0976	.0973
240.00	.0970	.0967	.0964	.0960	.0957	.0954	.0951	.0948	.0945	.0942	.0939	.0936
244.00	.0933	.0930	.0927	.0924	.0921	.0918	.0915	.0912	.0909	.0906	.0903	.0900
248.00	.0897	.0894	.0892	.0889	.0886	.0883	.0880	.0877	.0874	.0872	.0869	.0866
252.00	.0863	.0860	.0858	.0855	.0852	.0849	.0846	.0844	.0841	.0838	.0836	.0833
256.00	.0830	.0827	.0825	.0822	.0819	.0817	.0814	.0812	.0809	.0806	.0804	.0801
260.00	.0798	.0796	.0793	.0791	.0788	.0786	.0783	.0781	.0778	.0776	.0773	.0771

CO - 60

HALF-LIFE 5.26 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	DAYS 0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
0.0	1.0000	.9964	.9928	.9892	.9857	.9821	.9786	.9750	.9715	.9680
100.0	.9645	.9611	.9576	.9542	.9507	.9473	.9439	.9405	.9371	.9337
200.0	.9303	.9270	.9236	.9203	.9170	.9137	.9104	.9071	.9039	.9006
300.0	.8973	.8941	.8909	.8877	.8845	.8813	.8781	.8750	.8718	.8687
400.0	.8655	.8624	.8593	.8562	.8531	.8500	.8470	.8439	.8409	.8379
500.0	.8348	.8318	.8288	.8258	.8229	.8199	.8169	.8140	.8111	.8081
600.0	.8052	.8023	.7994	.7966	.7937	.7908	.7880	.7851	.7823	.7795
700.0	.7767	.7739	.7711	.7683	.7655	.7628	.7600	.7573	.7546	.7519
800.0	.7491	.7464	.7438	.7411	.7384	.7357	.7331	.7304	.7278	.7252
900.0	.7226	.7200	.7174	.7148	.7122	.7097	.7071	.7045	.7020	.6995
1000.0	.6970	.6944	.6919	.6894	.6870	.6845	.6820	.6796	.6771	.6747
1100.0	.6722	.6698	.6674	.6650	.6626	.6602	.6578	.6555	.6531	.6508
1200.0	.6484	.6461	.6437	.6414	.6391	.6368	.6345	.6322	.6299	.6277
1300.0	.6254	.6232	.6209	.6187	.6164	.6142	.6120	.6098	.6076	.6054
1400.0	.6032	.6011	.5989	.5967	.5946	.5924	.5903	.5882	.5861	.5840
1500.0	.5818	.5797	.5777	.5756	.5735	.5714	.5694	.5673	.5653	.5632
1600.0	.5612	.5592	.5572	.5552	.5532	.5512	.5492	.5472	.5452	.5433
1700.0	.5413	.5394	.5374	.5355	.5336	.5316	.5297	.5278	.5259	.5240
1800.0	.5221	.5202	.5184	.5165	.5146	.5128	.5109	.5091	.5073	.5054
1900.0	.5036	.5018	.5000	.4982	.4964	.4946	.4928	.4910	.4893	.4875
2000.0	.4857	.4840	.4823	.4805	.4788	.4771	.4753	.4736	.4719	.4702
2100.0	.4685	.4668	.4652	.4635	.4618	.4601	.4585	.4568	.4552	.4535
2200.0	.4519	.4503	.4487	.4470	.4454	.4438	.4422	.4406	.4390	.4375
2300.0	.4359	.4343	.4327	.4312	.4296	.4281	.4265	.4250	.4235	.4219
2400.0	.4204	.4189	.4174	.4159	.4144	.4129	.4114	.4099	.4085	.4070
2500.0	.4055	.4041	.4026	.4012	.3997	.3983	.3968	.3954	.3940	.3926
2600.0	.3911	.3897	.3883	.3869	.3855	.3841	.3828	.3814	.3800	.3786
2700.0	.3773	.3759	.3746	.3732	.3719	.3705	.3692	.3679	.3665	.3652
2800.0	.3639	.3626	.3613	.3600	.3587	.3574	.3561	.3548	.3535	.3523
2900.0	.3510	.3497	.3485	.3472	.3460	.3447	.3435	.3422	.3410	.3398
3000.0	.3385	.3373	.3361	.3349	.3337	.3325	.3313	.3301	.3289	.3277
3100.0	.3265	.3254	.3242	.3230	.3219	.3207	.3195	.3184	.3172	.3161
3200.0	.3150	.3138	.3127	.3116	.3104	.3093	.3082	.3071	.3060	.3049
3300.0	.3038	.3027	.3016	.3005	.2994	.2984	.2973	.2962	.2951	.2941
3400.0	.2930	.2920	.2909	.2899	.2888	.2878	.2867	.2857	.2847	.2837

CO - 60

HALF-LIFE 5.26 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
3500.0	.2826	.2816	.2806	.2796	.2786	.2776	.2766	.2756	.2746	.2736
3600.0	.2726	.2716	.2706	.2697	.2687	.2677	.2668	.2658	.2648	.2639
3700.0	.2629	.2620	.2611	.2601	.2592	.2582	.2573	.2564	.2555	.2545
3800.0	.2536	.2527	.2518	.2509	.2500	.2491	.2482	.2473	.2464	.2455
3900.0	.2446	.2437	.2429	.2420	.2411	.2402	.2394	.2385	.2377	.2368
4000.0	.2360	.2351	.2343	.2334	.2326	.2317	.2309	.2301	.2292	.2284
4100.0	.2276	.2268	.2259	.2251	.2243	.2235	.2227	.2219	.2211	.2203
4200.0	.2195	.2187	.2179	.2171	.2164	.2156	.2148	.2140	.2133	.2125
4300.0	.2117	.2110	.2102	.2094	.2087	.2079	.2072	.2064	.2057	.2050
4400.0	.2042	.2035	.2028	.2020	.2013	.2006	.1998	.1991	.1984	.1977
4500.0	.1970	.1963	.1956	.1949	.1942	.1935	.1928	.1921	.1914	.1907
4600.0	.1900	.1893	.1886	.1879	.1873	.1866	.1859	.1853	.1846	.1839
4700.0	.1833	.1826	.1819	.1813	.1806	.1800	.1793	.1787	.1780	.1774
4800.0	.1768	.1761	.1755	.1749	.1742	.1736	.1730	.1723	.1717	.1711
4900.0	.1705	.1699	.1693	.1687	.1680	.1674	.1668	.1662	.1656	.1650
5000.0	.1644	.1639	.1633	.1627	.1621	.1615	.1609	.1603	.1598	.1592
5100.0	.1586	.1580	.1575	.1569	.1563	.1558	.1552	.1547	.1541	.1535
5200.0	.1530	.1524	.1519	.1513	.1508	.1503	.1497	.1492	.1486	.1481
5300.0	.1476	.1470	.1465	.1460	.1455	.1449	.1444	.1439	.1434	.1428
5400.0	.1423	.1418	.1413	.1408	.1403	.1398	.1393	.1388	.1383	.1378
5500.0	.1373	.1368	.1363	.1358	.1353	.1348	.1343	.1339	.1334	.1329
5600.0	.1324	.1319	.1315	.1310	.1305	.1301	.1296	.1291	.1286	.1282
5700.0	.1277	.1273	.1268	.1263	.1259	.1254	.1250	.1245	.1241	.1236
5800.0	.1232	.1228	.1223	.1219	.1214	.1210	.1206	.1201	.1197	.1193
5900.0	.1188	.1184	.1180	.1175	.1171	.1167	.1163	.1159	.1154	.1150
6000.0	.1146	.1142	.1138	.1134	.1130	.1126	.1122	.1118	.1113	.1109
6100.0	.1105	.1102	.1098	.1094	.1090	.1086	.1082	.1078	.1074	.1070
6200.0	.1066	.1062	.1059	.1055	.1051	.1047	.1043	.1040	.1036	.1032
6300.0	.1028	.1025	.1021	.1017	.1014	.1010	.1006	.1003	.0999	.0996
6400.0	.0992	.0988	.0985	.0981	.0978	.0974	.0971	.0967	.0964	.0960
6500.0	.0957	.0953	.0950	.0947	.0943	.0940	.0936	.0933	.0930	.0926
6600.0	.0923	.0920	.0916	.0913	.0910	.0906	.0903	.0900	.0897	.0893
6700.0	.0890	.0887	.0884	.0881	.0877	.0874	.0871	.0868	.0865	.0862
6800.0	.0859	.0856	.0852	.0849	.0846	.0843	.0840	.0837	.0834	.0831
6900.0	.0828	.0825	.0822	.0819	.0816	.0813	.0810	.0807	.0805	.0802
7000.0	.0799	.0796	.0793	.0790	.0787	.0785	.0782	.0779	.0776	.0773

NI - 63

HALF-LIFE 92.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9925	.9850	.9777	.9703	.9630	.9558	.9486	.9415	.9344
10.0	.9274	.9205	.9136	.9067	.8999	.8931	.8864	.8798	.8732	.8666
20.0	.8601	.8537	.8473	.8409	.8346	.8283	.8221	.8159	.8098	.8037
30.0	.7977	.7917	.7858	.7799	.7740	.7682	.7624	.7567	.7510	.7454
40.0	.7398	.7343	.7287	.7233	.7178	.7125	.7071	.7018	.6965	.6913
50.0	.6861	.6810	.6759	.6708	.6657	.6607	.6558	.6509	.6460	.6411
60.0	.6363	.6315	.6268	.6221	.6174	.6128	.6082	.6036	.5991	.5946
70.0	.5901	.5857	.5813	.5770	.5726	.5683	.5641	.5598	.5556	.5515
80.0	.5473	.5432	.5391	.5351	.5311	.5271	.5231	.5192	.5153	.5114
90.0	.5076	.5038	.5000	.4962	.4925	.4888	.4852	.4815	.4779	.4743

NI - 63

HALF-LIFE 92.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
100.0	.4708	.4672	.4637	.4602	.4568	.4533	.4499	.4466	.4432	.4399
110.0	.4366	.4333	.4301	.4268	.4236	.4204	.4173	.4142	.4111	.4080
120.0	.4049	.4019	.3988	.3959	.3929	.3899	.3870	.3841	.3812	.3784
130.0	.3755	.3727	.3699	.3671	.3644	.3616	.3589	.3562	.3536	.3509
140.0	.3483	.3457	.3431	.3405	.3379	.3354	.3329	.3304	.3279	.3254
150.0	.3230	.3206	.3182	.3158	.3134	.3110	.3087	.3064	.3041	.3018
160.0	.2996	.2973	.2951	.2929	.2907	.2885	.2863	.2842	.2820	.2799
170.0	.2778	.2757	.2737	.2716	.2696	.2675	.2655	.2635	.2616	.2596
180.0	.2576	.2557	.2538	.2519	.2500	.2481	.2463	.2444	.2426	.2408
190.0	.2390	.2372	.2354	.2336	.2319	.2301	.2284	.2267	.2250	.2233
200.0	.2216	.2199	.2183	.2167	.2150	.2134	.2118	.2102	.2086	.2071
210.0	.2055	.2040	.2025	.2009	.1994	.1979	.1964	.1950	.1935	.1921
220.0	.1906	.1892	.1878	.1864	.1850	.1836	.1822	.1808	.1795	.1781
230.0	.1768	.1754	.1741	.1728	.1715	.1702	.1690	.1677	.1664	.1652
240.0	.1639	.1627	.1615	.1603	.1591	.1579	.1567	.1555	.1544	.1532
250.0	.1520	.1509	.1498	.1487	.1475	.1464	.1453	.1442	.1432	.1421
260.0	.1410	.1400	.1389	.1379	.1368	.1358	.1348	.1338	.1328	.1318
270.0	.1308	.1298	.1288	.1279	.1269	.1259	.1250	.1241	.1231	.1222
280.0	.1213	.1204	.1195	.1186	.1177	.1168	.1159	.1151	.1142	.1133
290.0	.1125	.1116	.1108	.1100	.1091	.1083	.1075	.1067	.1059	.1051
300.0	.1043	.1035	.1028	.1020	.1012	.1005	.0997	.0990	.0982	.0975
310.0	.0968	.0960	.0953	.0946	.0939	.0932	.0925	.0918	.0911	.0904
320.0	.0897	.0891	.0884	.0877	.0871	.0864	.0858	.0851	.0845	.0838
330.0	.0832	.0826	.0820	.0814	.0807	.0801	.0795	.0789	.0784	.0778
340.0	.0772	.0766	.0760	.0755	.0749	.0743	.0738	.0732	.0727	.0721
350.0	.0716	.0710	.0705	.0700	.0695	.0689	.0684	.0679	.0674	.0669
360.0	.0664	.0659	.0654	.0649	.0644	.0639	.0634	.0630	.0625	.0620
370.0	.0616	.0611	.0606	.0602	.0597	.0593	.0588	.0584	.0580	.0575
380.0	.0571	.0567	.0562	.0558	.0554	.0550	.0546	.0542	.0538	.0534
390.0	.0530	.0526	.0522	.0518	.0514	.0510	.0506	.0502	.0499	.0495
400.0	.0491	.0487	.0484	.0480	.0477	.0473	.0469	.0466	.0462	.0459
410.0	.0455	.0452	.0449	.0445	.0442	.0439	.0435	.0432	.0429	.0426
420.0	.0422	.0419	.0416	.0413	.0410	.0407	.0404	.0401	.0398	.0395
430.0	.0392	.0389	.0386	.0383	.0380	.0377	.0374	.0372	.0369	.0366
440.0	.0363	.0361	.0358	.0355	.0353	.0350	.0347	.0345	.0342	.0340
450.0	.0337	.0334	.0332	.0329	.0327	.0324	.0322	.0320	.0317	.0315
460.0	.0313	.0310	.0308	.0306	.0303	.0301	.0299	.0296	.0294	.0292
470.0	.0290	.0288	.0285	.0283	.0281	.0279	.0277	.0275	.0273	.0271
480.0	.0269	.0267	.0265	.0263	.0261	.0259	.0257	.0255	.0253	.0251
490.0	.0249	.0247	.0246	.0244	.0242	.0240	.0238	.0236	.0235	.0233
500.0	.0231	.0229	.0228	.0226	.0224	.0223	.0221	.0219	.0218	.0216
510.0	.0214	.0213	.0211	.0210	.0208	.0206	.0205	.0203	.0202	.0200
520.0	.0199	.0197	.0196	.0194	.0193	.0191	.0190	.0189	.0187	.0186
530.0	.0184	.0183	.0182	.0180	.0179	.0178	.0176	.0175	.0174	.0172
540.0	.0171	.0170	.0168	.0167	.0166	.0165	.0163	.0162	.0161	.0160
550.0	.0159	.0157	.0156	.0155	.0154	.0153	.0152	.0150	.0149	.0148
560.0	.0147	.0146	.0145	.0144	.0143	.0142	.0141	.0140	.0139	.0137
570.0	.0136	.0135	.0134	.0133	.0132	.0131	.0130	.0129	.0128	.0127
580.0	.0127	.0126	.0125	.0124	.0123	.0122	.0121	.0120	.0119	.0118
590.0	.0117	.0116	.0116	.0115	.0114	.0113	.0112	.0111	.0110	.0110
600.0	.0109	.0108	.0107	.0106	.0106	.0105	.0104	.0103	.0102	.0102
610.0	.0101	.0100	.0099	.0099	.0098	.0097	.0096	.0096	.0095	.0094
620.0	.0094	.0093	.0092	.0092	.0091	.0090	.0089	.0089	.0088	.0087
630.0	.0087	.0086	.0086	.0085	.0084	.0084	.0083	.0082	.0082	.0081
640.0	.0081	.0080	.0079	.0079	.0078	.0078	.0077	.0076	.0076	.0075

NI - 63

HALF-LIFE 92.00 YEARS CALCULATION INTERVAL 5.0 YEARS

	YEARS									
YEARS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9630	.9274	.8931	.8601	.8283	.7977	.7682	.7398	.7125
50.0	.6861	.6607	.6363	.6128	.5901	.5683	.5473	.5271	.5076	.4888
100.0	.4708	.4533	.4366	.4204	.4049	.3899	.3755	.3616	.3483	.3354
150.0	.3230	.3110	.2996	.2885	.2778	.2675	.2576	.2481	.2390	.2301
200.0	.2216	.2134	.2055	.1979	.1906	.1836	.1768	.1702	.1639	.1579
250.0	.1520	.1464	.1410	.1358	.1308	.1259	.1213	.1168	.1125	.1083
300.0	.1043	.1005	.0968	.0932	.0897	.0864	.0832	.0801	.0772	.0743
350.0	.0716	.0689	.0664	.0639	.0616	.0593	.0571	.0550	.0530	.0510
400.0	.0491	.0473	.0455	.0439	.0422	.0407	.0392	.0377	.0363	.0350
450.0	.0337	.0324	.0313	.0301	.0290	.0279	.0269	.0259	.0249	.0240
500.0	.0231	.0223	.0214	.0206	.0199	.0191	.0184	.0178	.0171	.0165
550.0	.0159	.0153	.0147	.0142	.0136	.0131	.0127	.0122	.0117	.0113
600.0	.0109	.0105	.0101	.0097	.0094	.0090	.0087	.0084	.0081	.0078

CU - 64

HALF-LIFE 12.80 HOURS CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9955	.9910	.9866	.9821	.9777	.9733	.9689	.9645	.9602	.9559	.9516
1.00	.9473	.9430	.9388	.9345	.9303	.9262	.9220	.9178	.9137	.9096	.9055	.9014
2.00	.8974	.8933	.8893	.8853	.8813	.8773	.8734	.8695	.8655	.8616	.8578	.8539
3.00	.8501	.8462	.8424	.8386	.8348	.8311	.8273	.8236	.8199	.8162	.8125	.8089
4.00	.8052	.8016	.7980	.7944	.7908	.7873	.7837	.7802	.7767	.7732	.7697	.7662
5.00	.7628	.7594	.7559	.7525	.7492	.7458	.7424	.7391	.7358	.7324	.7291	.7259
6.00	.7226	.7193	.7161	.7129	.7097	.7065	.7033	.7001	.6970	.6938	.6907	.6876
7.00	.6845	.6814	.6784	.6753	.6723	.6692	.6662	.6632	.6602	.6573	.6543	.6514
8.00	.6484	.6455	.6426	.6397	.6368	.6340	.6311	.6283	.6254	.6226	.6198	.6170
9.00	.6142	.6115	.6087	.6060	.6033	.6005	.5978	.5951	.5925	.5898	.5871	.5845
10.00	.5819	.5792	.5766	.5740	.5715	.5689	.5663	.5638	.5612	.5587	.5562	.5537
11.00	.5512	.5487	.5462	.5438	.5413	.5389	.5365	.5341	.5316	.5293	.5269	.5245
12.00	.5221	.5198	.5174	.5151	.5128	.5105	.5082	.5059	.5036	.5014	.4991	.4969
13.00	.4946	.4924	.4902	.4880	.4858	.4836	.4814	.4792	.4771	.4749	.4728	.4707
14.00	.4685	.4664	.4643	.4622	.4602	.4581	.4560	.4540	.4519	.4499	.4479	.4459
15.00	.4438	.4418	.4399	.4379	.4359	.4339	.4320	.4300	.4281	.4262	.4243	.4223
16.00	.4204	.4186	.4167	.4148	.4129	.4111	.4092	.4074	.4055	.4037	.4019	.4001
17.00	.3983	.3965	.3947	.3929	.3912	.3894	.3876	.3859	.3842	.3824	.3807	.3790
18.00	.3773	.3756	.3739	.3722	.3705	.3689	.3672	.3656	.3639	.3623	.3606	.3590
19.00	.3574	.3558	.3542	.3526	.3510	.3494	.3479	.3463	.3447	.3432	.3416	.3401
20.00	.3386	.3370	.3355	.3340	.3325	.3310	.3295	.3280	.3266	.3251	.3236	.3222
21.00	.3207	.3193	.3178	.3164	.3150	.3136	.3122	.3107	.3093	.3080	.3066	.3052
22.00	.3038	.3024	.3011	.2997	.2984	.2970	.2957	.2944	.2930	.2917	.2904	.2891
23.00	.2878	.2865	.2852	.2839	.2826	.2814	.2801	.2788	.2776	.2763	.2751	.2739
24.00	.2726	.2714	.2702	.2690	.2677	.2665	.2653	.2641	.2630	.2618	.2606	.2594
25.00	.2583	.2571	.2559	.2548	.2536	.2525	.2514	.2502	.2491	.2480	.2469	.2457
26.00	.2446	.2435	.2424	.2414	.2403	.2392	.2381	.2370	.2360	.2349	.2338	.2328
27.00	.2317	.2307	.2297	.2286	.2276	.2266	.2256	.2245	.2235	.2225	.2215	.2205
28.00	.2195	.2185	.2176	.2166	.2156	.2146	.2137	.2127	.2117	.2108	.2098	.2089
29.00	.2080	.2070	.2061	.2052	.2042	.2033	.2024	.2015	.2006	.1997	.1988	.1979
30.00	.1970	.1961	.1952	.1943	.1935	.1926	.1917	.1909	.1900	.1892	.1883	.1875
31.00	.1866	.1858	.1849	.1841	.1833	.1824	.1816	.1808	.1800	.1792	.1784	.1776
32.00	.1768	.1760	.1752	.1744	.1736	.1728	.1721	.1713	.1705	.1697	.1690	.1682
33.00	.1675	.1667	.1660	.1652	.1645	.1637	.1630	.1623	.1615	.1608	.1601	.1593
34.00	.1586	.1579	.1572	.1565	.1558	.1551	.1544	.1537	.1530	.1523	.1516	.1509

CU - 64

HALF-LIFE 12.80 HOURS CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
35.00	.1503	.1496	.1489	.1482	.1476	.1469	.1463	.1456	.1449	.1443	.1436	.1430
36.00	.1423	.1417	.1411	.1404	.1398	.1392	.1385	.1379	.1373	.1367	.1361	.1355
37.00	.1348	.1342	.1336	.1330	.1324	.1318	.1312	.1307	.1301	.1295	.1289	.1283
38.00	.1277	.1272	.1266	.1260	.1255	.1249	.1243	.1238	.1232	.1227	.1221	.1216
39.00	.1210	.1205	.1199	.1194	.1188	.1183	.1178	.1172	.1167	.1162	.1157	.1151
40.00	.1146	.1141	.1136	.1131	.1126	.1121	.1116	.1111	.1106	.1101	.1096	.1091
41.00	.1086	.1081	.1076	.1071	.1066	.1062	.1057	.1052	.1047	.1043	.1038	.1033
42.00	.1029	.1024	.1019	.1015	.1010	.1006	.1001	.0997	.0992	.0988	.0983	.0979
43.00	.0974	.0970	.0966	.0961	.0957	.0953	.0948	.0944	.0940	.0936	.0931	.0927
44.00	.0923	.0919	.0915	.0911	.0907	.0902	.0898	.0894	.0890	.0886	.0882	.0878
45.00	.0874	.0870	.0867	.0863	.0859	.0855	.0851	.0847	.0843	.0840	.0836	.0832
46.00	.0828	.0825	.0821	.0817	.0813	.0810	.0806	.0803	.0799	.0795	.0792	.0788

ZN - 65

HALF-LIFE 245.00 DAYS CALCULATION INTERVAL 48.0 HOURS

	HOURS											
DAYS	0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9944	.9887	.9832	.9776	.9721	.9666	.9612	.9557	.9503	.9450	.9397
24.00	.9344	.9291	.9238	.9186	.9134	.9083	.9032	.8981	.8930	.8880	.8830	.8780
48.00	.8730	.8681	.8632	.8583	.8535	.8487	.8439	.8391	.8344	.8297	.8250	.8203
72.00	.8157	.8111	.8065	.8020	.7975	.7930	.7885	.7840	.7796	.7752	.7708	.7665
96.00	.7622	.7579	.7536	.7493	.7451	.7409	.7367	.7326	.7284	.7243	.7202	.7162
120.00	.7121	.7081	.7041	.7001	.6962	.6923	.6884	.6845	.6806	.6768	.6730	.6692
144.00	.6654	.6616	.6579	.6542	.6505	.6468	.6432	.6395	.6359	.6323	.6288	.6252
168.00	.6217	.6182	.6147	.6112	.6078	.6044	.6009	.5976	.5942	.5908	.5875	.5842
192.00	.5809	.5776	.5743	.5711	.5679	.5647	.5615	.5583	.5552	.5520	.5489	.5458
216.00	.5428	.5397	.5366	.5336	.5306	.5276	.5246	.5217	.5187	.5158	.5129	.5100
240.00	.5071	.5043	.5014	.4986	.4958	.4930	.4902	.4874	.4847	.4819	.4792	.4765
264.00	.4738	.4712	.4685	.4659	.4632	.4606	.4580	.4554	.4529	.4503	.4478	.4452
288.00	.4427	.4402	.4377	.4353	.4328	.4304	.4279	.4255	.4231	.4207	.4184	.4160
312.00	.4137	.4113	.4090	.4067	.4044	.4021	.3999	.3976	.3954	.3931	.3909	.3887
336.00	.3865	.3843	.3822	.3800	.3779	.3757	.3736	.3715	.3694	.3673	.3652	.3632
360.00	.3611	.3591	.3571	.3551	.3531	.3511	.3491	.3471	.3452	.3432	.3413	.3393
384.00	.3374	.3355	.3336	.3317	.3299	.3280	.3262	.3243	.3225	.3207	.3189	.3171
408.00	.3153	.3135	.3117	.3100	.3082	.3065	.3048	.3030	.3013	.2996	.2979	.2963
432.00	.2946	.2929	.2913	.2896	.2880	.2864	.2847	.2831	.2815	.2800	.2784	.2768
456.00	.2752	.2737	.2721	.2706	.2691	.2676	.2661	.2646	.2631	.2616	.2601	.2586
480.00	.2572	.2557	.2543	.2528	.2514	.2500	.2486	.2472	.2458	.2444	.2430	.2417
504.00	.2403	.2389	.2376	.2362	.2349	.2336	.2323	.2310	.2297	.2284	.2271	.2258
528.00	.2245	.2233	.2220	.2207	.2195	.2183	.2170	.2158	.2146	.2134	.2122	.2110
552.00	.2098	.2086	.2074	.2062	.2051	.2039	.2028	.2016	.2005	.1994	.1982	.1971
576.00	.1960	.1949	.1938	.1927	.1916	.1905	.1895	.1884	.1873	.1863	.1852	.1842
600.00	.1831	.1821	.1811	.1801	.1790	.1780	.1770	.1760	.1750	.1740	.1731	.1721
624.00	.1711	.1702	.1692	.1682	.1673	.1663	.1654	.1645	.1635	.1626	.1617	.1608
648.00	.1599	.1590	.1581	.1572	.1563	.1554	.1545	.1537	.1528	.1519	.1511	.1502
672.00	.1494	.1485	.1477	.1469	.1460	.1452	.1444	.1436	.1428	.1420	.1412	.1404
696.00	.1396	.1388	.1380	.1372	.1365	.1357	.1349	.1342	.1334	.1327	.1319	.1312
720.00	.1304	.1297	.1290	.1282	.1275	.1268	.1261	.1254	.1246	.1239	.1232	.1225
744.00	.1219	.1212	.1205	.1198	.1191	.1185	.1178	.1171	.1165	.1158	.1152	.1145
768.00	.1139	.1132	.1126	.1119	.1113	.1107	.1101	.1094	.1088	.1082	.1076	.1070
792.00	.1064	.1058	.1052	.1046	.1040	.1034	.1028	.1023	.1017	.1011	.1005	.1000
816.00	.0994	.0988	.0983	.0977	.0972	.0966	.0961	.0955	.0950	.0945	.0939	.0934

ZN - 65

HALF-LIFE 245.00 DAYS CALCULATION INTERVAL 48.0 HOURS

DAYS	HOURS 0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
840.00	.0929	.0924	.0918	.0913	.0908	.0903	.0898	.0893	.0888	.0883	.0878	.0873
864.00	.0868	.0863	.0858	.0853	.0848	.0844	.0839	.0834	.0829	.0825	.0820	.0815
888.00	.0811	.0806	.0802	.0797	.0793	.0788	.0784	.0779	.0775	.0771	.0766	.0762

GA - 67

HALF-LIFE 77.90 HOURS CALCULATION INTERVAL .5 HOURS

HOURS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
0.0	1.0000	.9956	.9911	.9867	.9824	.9780	.9737	.9693	.9650	.9608
5.0	.9565	.9522	.9480	.9438	.9396	.9354	.9313	.9272	.9230	.9189
10.0	.9149	.9108	.9068	.9027	.8987	.8947	.8908	.8868	.8829	.8790
15.0	.8751	.8712	.8673	.8635	.8596	.8558	.8520	.8482	.8445	.8407
20.0	.8370	.8333	.8296	.8259	.8222	.8186	.8149	.8113	.8077	.8041
25.0	.8006	.7970	.7935	.7899	.7864	.7829	.7795	.7760	.7726	.7691
30.0	.7657	.7623	.7589	.7556	.7522	.7489	.7456	.7422	.7389	.7357
35.0	.7324	.7292	.7259	.7227	.7195	.7163	.7131	.7099	.7068	.7037
40.0	.7005	.6974	.6943	.6912	.6882	.6851	.6821	.6791	.6760	.6730
45.0	.6700	.6671	.6641	.6612	.6582	.6553	.6524	.6495	.6466	.6437
50.0	.6409	.6380	.6352	.6324	.6296	.6268	.6240	.6212	.6185	.6157
55.0	.6130	.6103	.6076	.6049	.6022	.5995	.5969	.5942	.5916	.5889
60.0	.5863	.5837	.5811	.5786	.5760	.5734	.5709	.5684	.5658	.5633
65.0	.5608	.5583	.5558	.5534	.5509	.5485	.5460	.5436	.5412	.5388
70.0	.5364	.5340	.5317	.5293	.5270	.5246	.5223	.5200	.5177	.5154
75.0	.5131	.5108	.5085	.5063	.5040	.5018	.4996	.4973	.4951	.4929
80.0	.4907	.4886	.4864	.4842	.4821	.4799	.4778	.4757	.4736	.4715
85.0	.4694	.4673	.4652	.4632	.4611	.4591	.4570	.4550	.4530	.4510
90.0	.4490	.4470	.4450	.4430	.4410	.4391	.4371	.4352	.4333	.4313
95.0	.4294	.4275	.4256	.4237	.4219	.4200	.4181	.4163	.4144	.4126
100.0	.4107	.4089	.4071	.4053	.4035	.4017	.3999	.3981	.3964	.3946
105.0	.3929	.3911	.3894	.3877	.3859	.3842	.3825	.3808	.3791	.3774
110.0	.3758	.3741	.3724	.3708	.3691	.3675	.3659	.3643	.3626	.3610
115.0	.3594	.3578	.3562	.3547	.3531	.3515	.3500	.3484	.3469	.3453
120.0	.3438	.3423	.3407	.3392	.3377	.3362	.3347	.3332	.3318	.3303
125.0	.3288	.3274	.3259	.3245	.3230	.3216	.3202	.3187	.3173	.3159
130.0	.3145	.3131	.3117	.3103	.3090	.3076	.3062	.3049	.3035	.3022
135.0	.3008	.2995	.2982	.2968	.2955	.2942	.2929	.2916	.2903	.2890
140.0	.2877	.2865	.2852	.2839	.2827	.2814	.2802	.2789	.2777	.2764
145.0	.2752	.2740	.2728	.2716	.2704	.2692	.2680	.2668	.2656	.2644
150.0	.2632	.2621	.2609	.2598	.2586	.2574	.2563	.2552	.2540	.2529
155.0	.2518	.2507	.2496	.2484	.2473	.2462	.2452	.2441	.2430	.2419
160.0	.2408	.2398	.2387	.2376	.2366	.2355	.2345	.2334	.2324	.2314
165.0	.2304	.2293	.2283	.2273	.2263	.2253	.2243	.2233	.2223	.2213
170.0	.2203	.2193	.2184	.2174	.2164	.2155	.2145	.2136	.2126	.2117
175.0	.2107	.2098	.2089	.2079	.2070	.2061	.2052	.2043	.2034	.2025
180.0	.2016	.2007	.1998	.1989	.1980	.1971	.1963	.1954	.1945	.1937
185.0	.1928	.1919	.1911	.1902	.1894	.1886	.1877	.1869	.1861	.1852
190.0	.1844	.1836	.1828	.1820	.1812	.1804	.1796	.1788	.1780	.1772
195.0	.1764	.1756	.1748	.1740	.1733	.1725	.1717	.1710	.1702	.1695
200.0	.1687	.1680	.1672	.1665	.1657	.1650	.1643	.1635	.1628	.1621
205.0	.1614	.1607	.1599	.1592	.1585	.1578	.1571	.1564	.1557	.1550
210.0	.1543	.1537	.1530	.1523	.1516	.1510	.1503	.1496	.1489	.1483
215.0	.1476	.1470	.1463	.1457	.1450	.1444	.1437	.1431	.1425	.1418
220.0	.1412	.1406	.1400	.1393	.1387	.1381	.1375	.1369	.1363	.1357

GA - 67

HALF-LIFE 77.90 HOURS — CALCULATION INTERVAL .5 HOURS

HOURS	0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
225.0	.1351	.1345	.1339	.1333	.1327	.1321	.1315	.1309	.1303	.1298
230.0	.1292	.1286	.1280	.1275	.1269	.1263	.1258	.1252	.1247	.1241
235.0	.1236	.1230	.1225	.1219	.1214	.1208	.1203	.1198	.1192	.1187
240.0	.1182	.1177	.1171	.1166	.1161	.1156	.1151	.1146	.1141	.1135
245.0	.1130	.1125	.1120	.1115	.1110	.1106	.1101	.1096	.1091	.1086
250.0	.1081	.1076	.1072	.1067	.1062	.1057	.1053	.1048	.1043	.1039
255.0	.1034	.1030	.1025	.1020	.1016	.1011	.1007	.1002	.0998	.0994
260.0	.0989	.0985	.0980	.0976	.0972	.0967	.0963	.0959	.0955	.0950
265.0	.0946	.0942	.0938	.0934	.0929	.0925	.0921	.0917	.0913	.0909
270.0	.0905	.0901	.0897	.0893	.0889	.0885	.0881	.0877	.0873	.0869
275.0	.0866	.0862	.0858	.0854	.0850	.0847	.0843	.0839	.0835	.0832
280.0	.0828	.0824	.0821	.0817	.0813	.0810	.0806	.0803	.0799	.0795

AS - 74

HALF-LIFE 17.90 DAYS — CALCULATION INTERVAL 2.0 HOURS

DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9968	.9936	.9904	.9872	.9840	.9808	.9777	.9745	.9714	.9682	.9651
1.00	.9620	.9589	.9558	.9527	.9497	.9466	.9436	.9405	.9375	.9345	.9315	.9285
2.00	.9255	.9225	.9195	.9166	.9136	.9107	.9077	.9048	.9019	.8990	.8961	.8932
3.00	.8903	.8875	.8846	.8817	.8789	.8761	.8733	.8704	.8676	.8648	.8621	.8593
4.00	.8565	.8537	.8510	.8483	.8455	.8428	.8401	.8374	.8347	.8320	.8293	.8266
5.00	.8240	.8213	.8187	.8160	.8134	.8108	.8082	.8056	.8030	.8004	.7978	.7952
6.00	.7927	.7901	.7876	.7850	.7825	.7800	.7775	.7750	.7725	.7700	.7675	.7650
7.00	.7626	.7601	.7577	.7552	.7528	.7504	.7479	.7455	.7431	.7407	.7384	.7360
8.00	.7336	.7312	.7289	.7265	.7242	.7219	.7195	.7172	.7149	.7126	.7103	.7080
9.00	.7057	.7035	.7012	.6989	.6967	.6944	.6922	.6900	.6878	.6855	.6833	.6811
10.00	.6789	.6767	.6746	.6724	.6702	.6681	.6659	.6638	.6616	.6595	.6574	.6553
11.00	.6531	.6510	.6489	.6469	.6448	.6427	.6406	.6386	.6365	.6344	.6324	.6304
12.00	.6283	.6263	.6243	.6223	.6203	.6183	.6163	.6143	.6123	.6104	.6084	.6064
13.00	.6045	.6025	.6006	.5986	.5967	.5948	.5929	.5910	.5891	.5872	.5853	.5834
14.00	.5815	.5796	.5778	.5759	.5741	.5722	.5704	.5685	.5667	.5649	.5630	.5612
15.00	.5594	.5576	.5558	.5540	.5522	.5505	.5487	.5469	.5452	.5434	.5417	.5399
16.00	.5382	.5364	.5347	.5330	.5313	.5296	.5279	.5262	.5245	.5228	.5211	.5194
17.00	.5177	.5161	.5144	.5127	.5111	.5094	.5078	.5062	.5045	.5029	.5013	.4997
18.00	.4981	.4965	.4949	.4933	.4917	.4901	.4885	.4869	.4854	.4838	.4823	.4807
19.00	.4791	.4776	.4761	.4745	.4730	.4715	.4700	.4684	.4669	.4654	.4639	.4624
20.00	.4609	.4595	.4580	.4565	.4550	.4536	.4521	.4507	.4492	.4478	.4463	.4449
21.00	.4434	.4420	.4406	.4392	.4378	.4363	.4349	.4335	.4321	.4307	.4294	.4280
22.00	.4266	.4252	.4239	.4225	.4211	.4198	.4184	.4171	.4157	.4144	.4131	.4117
23.00	.4104	.4091	.4078	.4064	.4051	.4038	.4025	.4012	.3999	.3986	.3974	.3961
24.00	.3948	.3935	.3923	.3910	.3897	.3885	.3872	.3860	.3847	.3835	.3823	.3810
25.00	.3798	.3786	.3774	.3762	.3749	.3737	.3725	.3713	.3701	.3689	.3677	.3666
26.00	.3654	.3642	.3630	.3619	.3607	.3595	.3584	.3572	.3561	.3549	.3538	.3526
27.00	.3515	.3504	.3492	.3481	.3470	.3459	.3448	.3437	.3425	.3414	.3403	.3392
28.00	.3382	.3371	.3360	.3349	.3338	.3327	.3317	.3306	.3295	.3285	.3274	.3264
29.00	.3253	.3243	.3232	.3222	.3211	.3201	.3191	.3180	.3170	.3160	.3150	.3140
30.00	.3130	.3119	.3109	.3099	.3089	.3079	.3070	.3060	.3050	.3040	.3030	.3020
31.00	.3011	.3001	.2991	.2982	.2972	.2962	.2953	.2943	.2934	.2924	.2915	.2906
32.00	.2896	.2887	.2878	.2868	.2859	.2850	.2841	.2832	.2823	.2813	.2804	.2795
33.00	.2786	.2777	.2768	.2759	.2751	.2742	.2733	.2724	.2715	.2707	.2698	.2689
34.00	.2680	.2672	.2663	.2655	.2646	.2638	.2629	.2621	.2612	.2604	.2595	.2587

AS - 74

HALF-LIFE 17.90 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
35.00	.2579	.2570	.2562	.2554	.2546	.2537	.2529	.2521	.2513	.2505	.2497	.2489
36.00	.2481	.2473	.2465	.2457	.2449	.2441	.2433	.2425	.2417	.2410	.2402	.2394
37.00	.2386	.2379	.2371	.2363	.2356	.2348	.2341	.2333	.2326	.2318	.2311	.2303
38.00	.2296	.2288	.2281	.2274	.2266	.2259	.2252	.2245	.2237	.2230	.2223	.2216
39.00	.2209	.2202	.2194	.2187	.2180	.2173	.2166	.2159	.2152	.2145	.2139	.2132
40.00	.2125	.2118	.2111	.2104	.2097	.2091	.2084	.2077	.2071	.2064	.2057	.2051
41.00	.2044	.2037	.2031	.2024	.2018	.2011	.2005	.1998	.1992	.1986	.1979	.1973
42.00	.1966	.1960	.1954	.1947	.1941	.1935	.1929	.1922	.1916	.1910	.1904	.1898
43.00	.1892	.1886	.1880	.1873	.1867	.1861	.1855	.1849	.1844	.1838	.1832	.1826
44.00	.1820	.1814	.1808	.1802	.1797	.1791	.1785	.1779	.1773	.1768	.1762	.1756
45.00	.1751	.1745	.1739	.1734	.1728	.1723	.1717	.1712	.1706	.1701	.1695	.1690
46.00	.1684	.1679	.1673	.1668	.1663	.1657	.1652	.1647	.1641	.1636	.1631	.1626
47.00	.1620	.1615	.1610	.1605	.1599	.1594	.1589	.1584	.1579	.1574	.1569	.1564
48.00	.1559	.1554	.1549	.1544	.1539	.1534	.1529	.1524	.1519	.1514	.1509	.1504
49.00	.1500	.1495	.1490	.1485	.1480	.1476	.1471	.1466	.1461	.1457	.1452	.1447
50.00	.1443	.1438	.1433	.1429	.1424	.1419	.1415	.1410	.1406	.1401	.1397	.1392
51.00	.1388	.1383	.1379	.1374	.1370	.1366	.1361	.1357	.1352	.1348	.1344	.1339
52.00	.1335	.1331	.1326	.1322	.1318	.1314	.1309	.1305	.1301	.1297	.1293	.1288
53.00	.1284	.1280	.1276	.1272	.1268	.1264	.1260	.1256	.1252	.1248	.1244	.1240
54.00	.1236	.1232	.1228	.1224	.1220	.1216	.1212	.1208	.1204	.1200	.1196	.1192
55.00	.1189	.1185	.1181	.1177	.1173	.1170	.1166	.1162	.1158	.1155	.1151	.1147
56.00	.1143	.1140	.1136	.1132	.1129	.1125	.1122	.1118	.1114	.1111	.1107	.1104
57.00	.1100	.1097	.1093	.1089	.1086	.1082	.1079	.1075	.1072	.1069	.1065	.1062
58.00	.1058	.1055	.1051	.1048	.1045	.1041	.1038	.1035	.1031	.1028	.1025	.1021
59.00	.1018	.1015	.1012	.1008	.1005	.1002	.0999	.0995	.0992	.0989	.0986	.0983
60.00	.0979	.0976	.0973	.0970	.0967	.0964	.0961	.0958	.0954	.0951	.0948	.0945
61.00	.0942	.0939	.0936	.0933	.0930	.0927	.0924	.0921	.0918	.0915	.0912	.0909
62.00	.0906	.0903	.0901	.0898	.0895	.0892	.0889	.0886	.0883	.0880	.0878	.0875
63.00	.0872	.0869	.0866	.0864	.0861	.0858	.0855	.0853	.0850	.0847	.0844	.0842
64.00	.0839	.0836	.0833	.0831	.0828	.0825	.0823	.0820	.0817	.0815	.0812	.0810
65.00	.0807	.0804	.0802	.0799	.0797	.0794	.0792	.0789	.0786	.0784	.0781	.0779

AS - 76

HALF-LIFE 26.40 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9870	.9741	.9614	.9488	.9365	.9243	.9122	.9003	.8886	.8770	.8655
6.00	.8542	.8431	.8321	.8213	.8105	.8000	.7895	.7792	.7691	.7591	.7492	.7394
12.00	.7297	.7202	.7108	.7016	.6924	.6834	.6745	.6657	.6570	.6484	.6400	.6316
18.00	.6234	.6152	.6072	.5993	.5915	.5838	.5762	.5686	.5612	.5539	.5467	.5396
24.00	.5325	.5256	.5187	.5120	.5053	.4987	.4922	.4858	.4794	.4732	.4670	.4609
30.00	.4549	.4490	.4431	.4373	.4316	.4260	.4204	.4150	.4096	.4042	.3989	.3937
36.00	.3886	.3835	.3785	.3736	.3687	.3639	.3592	.3545	.3499	.3453	.3408	.3363
42.00	.3320	.3276	.3234	.3191	.3150	.3109	.3068	.3028	.2989	.2950	.2911	.2873
48.00	.2836	.2799	.2762	.2726	.2691	.2656	.2621	.2587	.2553	.2520	.2487	.2454
54.00	.2422	.2391	.2360	.2329	.2299	.2269	.2239	.2210	.2181	.2153	.2124	.2097
60.00	.2069	.2042	.2016	.1989	.1964	.1938	.1913	.1888	.1863	.1839	.1815	.1791
66.00	.1768	.1745	.1722	.1699	.1677	.1655	.1634	.1613	.1592	.1571	.1550	.1530
72.00	.1510	.1490	.1471	.1452	.1433	.1414	.1396	.1378	.1360	.1342	.1324	.1307
78.00	.1290	.1273	.1257	.1240	.1224	.1208	.1192	.1177	.1161	.1146	.1131	.1117
84.00	.1102	.1088	.1073	.1059	.1046	.1032	.1019	.1005	.0992	.0979	.0966	.0954

AS - 76

HALF-LIFE 26.40 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
90.00	.0941	.0929	.0917	.0905	.0893	.0882	.0870	.0859	.0848	.0836	.0826	.0815
96.00	.0804	.0794	.0783	.0773	.0763	.0753	.0743	.0734	.0724	.0715	.0705	.0696

SE - 75

HALF-LIFE 120.40 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9943	.9886	.9829	.9772	.9716	.9660	.9605	.9550	.9495	.9441	.9386
12.00	.9332	.9279	.9226	.9173	.9120	.9068	.9016	.8964	.8912	.8861	.8810	.8760
24.00	.8710	.8660	.8610	.8560	.8511	.8462	.8414	.8366	.8317	.8270	.8222	.8175
36.00	.8128	.8081	.8035	.7989	.7943	.7898	.7852	.7807	.7762	.7718	.7673	.7629
48.00	.7586	.7542	.7499	.7456	.7413	.7370	.7328	.7286	.7244	.7203	.7161	.7120
60.00	.7079	.7039	.6998	.6958	.6918	.6878	.6839	.6800	.6761	.6722	.6683	.6645
72.00	.6607	.6569	.6531	.6494	.6456	.6419	.6382	.6346	.6309	.6273	.6237	.6201
84.00	.6166	.6130	.6095	.6060	.6025	.5991	.5956	.5922	.5888	.5854	.5821	.5787
96.00	.5754	.5721	.5688	.5656	.5623	.5591	.5559	.5527	.5495	.5464	.5432	.5401
108.00	.5370	.5339	.5309	.5278	.5248	.5218	.5188	.5158	.5128	.5099	.5070	.5040
120.00	.5012	.4983	.4954	.4926	.4897	.4869	.4841	.4814	.4786	.4758	.4731	.4704
132.00	.4677	.4650	.4623	.4597	.4571	.4544	.4518	.4492	.4466	.4441	.4415	.4390
144.00	.4365	.4340	.4315	.4290	.4265	.4241	.4217	.4192	.4168	.4144	.4121	.4097
156.00	.4073	.4050	.4027	.4004	.3981	.3958	.3935	.3913	.3890	.3868	.3846	.3823
168.00	.3802	.3780	.3758	.3736	.3715	.3694	.3672	.3651	.3630	.3610	.3589	.3568
180.00	.3548	.3527	.3507	.3487	.3467	.3447	.3427	.3408	.3388	.3369	.3349	.3330
192.00	.3311	.3292	.3273	.3254	.3236	.3217	.3199	.3180	.3162	.3144	.3126	.3108
204.00	.3090	.3072	.3055	.3037	.3020	.3002	.2985	.2968	.2951	.2934	.2917	.2900
216.00	.2884	.2867	.2851	.2834	.2818	.2802	.2786	.2770	.2754	.2738	.2722	.2707
228.00	.2691	.2676	.2660	.2645	.2630	.2615	.2600	.2585	.2570	.2555	.2541	.2526
240.00	.2512	.2497	.2483	.2469	.2454	.2440	.2426	.2412	.2398	.2385	.2371	.2357
252.00	.2344	.2330	.2317	.2304	.2291	.2277	.2264	.2251	.2238	.2226	.2213	.2200
264.00	.2187	.2175	.2162	.2150	.2138	.2125	.2113	.2101	.2089	.2077	.2065	.2053
276.00	.2041	.2030	.2018	.2006	.1995	.1983	.1972	.1961	.1950	.1938	.1927	.1916
288.00	.1905	.1894	.1883	.1873	.1862	.1851	.1840	.1830	.1819	.1809	.1799	.1788
300.00	.1778	.1768	.1758	.1748	.1737	.1728	.1718	.1708	.1698	.1688	.1679	.1669
312.00	.1659	.1650	.1640	.1631	.1622	.1612	.1603	.1594	.1585	.1576	.1566	.1557
324.00	.1549	.1540	.1531	.1522	.1513	.1505	.1496	.1487	.1479	.1470	.1462	.1454
336.00	.1445	.1437	.1429	.1420	.1412	.1404	.1396	.1388	.1380	.1372	.1364	.1356
348.00	.1349	.1341	.1333	.1326	.1318	.1310	.1303	.1295	.1288	.1281	.1273	.1266
360.00	.1259	.1251	.1244	.1237	.1230	.1223	.1216	.1209	.1202	.1195	.1188	.1181
372.00	.1175	.1168	.1161	.1155	.1148	.1141	.1135	.1128	.1122	.1115	.1109	.1103
384.00	.1096	.1090	.1084	.1077	.1071	.1065	.1059	.1053	.1047	.1041	.1035	.1029
396.00	.1023	.1017	.1011	.1006	.1000	.0994	.0988	.0983	.0977	.0971	.0966	.0960
408.00	.0955	.0949	.0944	.0938	.0933	.0928	.0922	.0917	.0912	.0907	.0901	.0896
420.00	.0891	.0886	.0881	.0876	.0871	.0866	.0861	.0856	.0851	.0846	.0841	.0836
432.00	.0832	.0827	.0822	.0817	.0813	.0808	.0803	.0799	.0794	.0790	.0785	.0781

BR - 82

HALF-LIFE 35.34 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9902	.9806	.9710	.9615	.9521	.9429	.9337	.9245	.9155	.9066	.8977
6.00	.8890	.8803	.8717	.8632	.8548	.8464	.8382	.8300	.8219	.8139	.8059	.7981
12.00	.7903	.7826	.7749	.7674	.7599	.7525	.7451	.7379	.7307	.7235	.7165	.7095
18.00	.7025	.6957	.6889	.6822	.6755	.6689	.6624	.6559	.6495	.6432	.6369	.6307
24.00	.6245	.6185	.6124	.6064	.6005	.5947	.5889	.5831	.5774	.5718	.5662	.5607
30.00	.5552	.5498	.5444	.5391	.5339	.5286	.5235	.5184	.5133	.5083	.5033	.4984
36.00	.4936	.4888	.4840	.4793	.4746	.4700	.4654	.4608	.4563	.4519	.4475	.4431
42.00	.4388	.4345	.4303	.4261	.4219	.4178	.4137	.4097	.4057	.4017	.3978	.3939
48.00	.3901	.3863	.3825	.3788	.3751	.3714	.3678	.3642	.3606	.3571	.3536	.3502
54.00	.3468	.3434	.3400	.3367	.3334	.3302	.3269	.3237	.3206	.3175	.3144	.3113
60.00	.3083	.3052	.3023	.2993	.2964	.2935	.2906	.2878	.2850	.2822	.2795	.2767
66.00	.2740	.2714	.2687	.2661	.2635	.2609	.2584	.2559	.2534	.2509	.2484	.2460
72.00	.2436	.2412	.2389	.2365	.2342	.2320	.2297	.2274	.2252	.2230	.2209	.2187
78.00	.2166	.2145	.2124	.2103	.2082	.2062	.2042	.2022	.2002	.1983	.1963	.1944
84.00	.1925	.1906	.1888	.1869	.1851	.1833	.1815	.1797	.1780	.1763	.1745	.1728
90.00	.1711	.1695	.1678	.1662	.1646	.1630	.1614	.1598	.1582	.1567	.1552	.1536
96.00	.1521	.1507	.1492	.1477	.1463	.1449	.1435	.1421	.1407	.1393	.1379	.1366
102.00	.1353	.1339	.1326	.1313	.1301	.1288	.1275	.1263	.1250	.1238	.1226	.1214
108.00	.1202	.1191	.1179	.1168	.1156	.1145	.1134	.1123	.1112	.1101	.1090	.1079
114.00	.1069	.1058	.1048	.1038	.1028	.1018	.1008	.0998	.0988	.0979	.0969	.0960
120.00	.0950	.0941	.0932	.0923	.0914	.0905	.0896	.0887	.0879	.0870	.0861	.0853
126.00	.0845	.0836	.0828	.0820	.0812	.0804	.0796	.0789	.0781	.0773	.0766	.0758

KR - 85

HALF-LIFE 10.76 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	DAYS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9947	.9895	.9842	.9790	.9739	.9687	.9636	.9585	.9535
300.0	.9484	.9434	.9384	.9335	.9286	.9237	.9188	.9139	.9091	.9043
600.0	.8995	.8948	.8900	.8853	.8807	.8760	.8714	.8668	.8622	.8577
900.0	.8531	.8486	.8441	.8397	.8353	.8308	.8265	.8221	.8177	.8134
1200.0	.8091	.8049	.8006	.7964	.7922	.7880	.7838	.7797	.7756	.7715
1500.0	.7674	.7634	.7593	.7553	.7513	.7474	.7434	.7395	.7356	.7317
1800.0	.7278	.7240	.7202	.7164	.7126	.7088	.7051	.7014	.6976	.6940
2100.0	.6903	.6867	.6830	.6794	.6758	.6723	.6687	.6652	.6617	.6582
2400.0	.6547	.6512	.6478	.6444	.6410	.6376	.6342	.6309	.6275	.6242
2700.0	.6209	.6177	.6144	.6112	.6079	.6047	.6015	.5983	.5952	.5920
3000.0	.5889	.5858	.5827	.5796	.5766	.5735	.5705	.5675	.5645	.5615
3300.0	.5585	.5556	.5527	.5497	.5468	.5440	.5411	.5382	.5354	.5326
3600.0	.5297	.5269	.5242	.5214	.5186	.5159	.5132	.5105	.5078	.5051
3900.0	.5024	.4998	.4971	.4945	.4919	.4893	.4867	.4841	.4816	.4790
4200.0	.4765	.4740	.4715	.4690	.4665	.4641	.4616	.4592	.4568	.4543
4500.0	.4519	.4496	.4472	.4448	.4425	.4401	.4378	.4355	.4332	.4309
4800.0	.4286	.4264	.4241	.4219	.4197	.4174	.4152	.4130	.4109	.4087
5100.0	.4065	.4044	.4022	.4001	.3980	.3959	.3938	.3917	.3897	.3876
5400.0	.3856	.3835	.3815	.3795	.3775	.3755	.3735	.3715	.3696	.3676
5700.0	.3657	.3638	.3618	.3599	.3580	.3561	.3542	.3524	.3505	.3487
6000.0	.3468	.3450	.3432	.3414	.3396	.3378	.3360	.3342	.3324	.3307
6300.0	.3289	.3272	.3255	.3238	.3220	.3203	.3187	.3170	.3153	.3136
6600.0	.3120	.3103	.3087	.3071	.3054	.3038	.3022	.3006	.2990	.2975
6900.0	.2959	.2943	.2928	.2912	.2897	.2882	.2866	.2851	.2836	.2821
7200.0	.2806	.2791	.2777	.2762	.2747	.2733	.2719	.2704	.2690	.2676

KR - 85

HALF-LIFE 10.76 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
7500.0	.2662	.2647	.2634	.2620	.2606	.2592	.2578	.2565	.2551	.2538
7800.0	.2524	.2511	.2498	.2485	.2471	.2458	.2445	.2432	.2420	.2407
8100.0	.2394	.2381	.2369	.2356	.2344	.2332	.2319	.2307	.2295	.2283
8400.0	.2271	.2259	.2247	.2235	.2223	.2211	.2200	.2188	.2176	.2165
8700.0	.2154	.2142	.2131	.2120	.2108	.2097	.2086	.2075	.2064	.2053
9000.0	.2042	.2032	.2021	.2010	.2000	.1989	.1979	.1968	.1958	.1947
9300.0	.1937	.1927	.1917	.1907	.1897	.1887	.1877	.1867	.1857	.1847
9600.0	.1837	.1828	.1818	.1808	.1799	.1789	.1780	.1770	.1761	.1752
9900.0	.1743	.1733	.1724	.1715	.1706	.1697	.1688	.1679	.1670	.1661
10200.0	.1653	.1644	.1635	.1627	.1618	.1609	.1601	.1593	.1584	.1576
10500.0	.1567	.1559	.1551	.1543	.1535	.1526	.1518	.1510	.1502	.1494
10800.0	.1487	.1479	.1471	.1463	.1455	.1448	.1440	.1433	.1425	.1417
11100.0	.1410	.1402	.1395	.1388	.1380	.1373	.1366	.1359	.1351	.1344
11400.0	.1337	.1330	.1323	.1316	.1309	.1302	.1295	.1289	.1282	.1275
11700.0	.1268	.1262	.1255	.1248	.1242	.1235	.1229	.1222	.1216	.1209
12000.0	.1203	.1197	.1190	.1184	.1178	.1171	.1165	.1159	.1153	.1147
12300.0	.1141	.1135	.1129	.1123	.1117	.1111	.1105	.1099	.1094	.1088
12600.0	.1082	.1076	.1071	.1065	.1059	.1054	.1048	.1043	.1037	.1032
12900.0	.1026	.1021	.1015	.1010	.1005	.0999	.0994	.0989	.0984	.0978
13200.0	.0973	.0968	.0963	.0958	.0953	.0948	.0943	.0938	.0933	.0928
13500.0	.0923	.0918	.0913	.0909	.0904	.0899	.0894	.0890	.0885	.0880
13800.0	.0875	.0871	.0866	.0862	.0857	.0853	.0848	.0844	.0839	.0835
14100.0	.0830	.0826	.0822	.0817	.0813	.0809	.0804	.0800	.0796	.0792

KR - 85

HALF-LIFE 10.76 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9376	.8791	.8243	.7728	.7246	.6794	.6370	.5973	.5600
10.0	.5251	.4923	.4616	.4328	.4058	.3805	.3568	.3345	.3136	.2941
20.0	.2757	.2585	.2424	.2273	.2131	.1998	.1873	.1756	.1647	.1544
30.0	.1448	.1357	.1273	.1193	.1119	.1049	.0984	.0922	.0865	.0811
40.0	.0760	.0713	.0668	.0627	.0588	.0551	.0516	.0484	.0454	.0426

RB - 86

HALF-LIFE 18.66 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9969	.9938	.9908	.9877	.9846	.9816	.9786	.9755	.9725	.9695	.9665
1.00	.9635	.9606	.9576	.9546	.9517	.9487	.9458	.9429	.9400	.9371	.9342	.9313
2.00	.9284	.9255	.9227	.9198	.9170	.9141	.9113	.9085	.9057	.9029	.9001	.8973
3.00	.8945	.8918	.8890	.8863	.8835	.8808	.8781	.8754	.8727	.8700	.8673	.8646
4.00	.8619	.8593	.8566	.8540	.8513	.8487	.8461	.8435	.8408	.8382	.8357	.8331
5.00	.8305	.8279	.8254	.8228	.8203	.8177	.8152	.8127	.8102	.8077	.8052	.8027
6.00	.8002	.7977	.7953	.7928	.7904	.7879	.7855	.7831	.7806	.7782	.7758	.7734
7.00	.7710	.7687	.7663	.7639	.7615	.7592	.7568	.7545	.7522	.7498	.7475	.7452
8.00	.7429	.7406	.7383	.7361	.7338	.7315	.7292	.7270	.7247	.7225	.7203	.7180
9.00	.7158	.7136	.7114	.7092	.7070	.7048	.7027	.7005	.6983	.6962	.6940	.6919
10.00	.6897	.6876	.6855	.6834	.6812	.6791	.6770	.6749	.6729	.6708	.6687	.6666
11.00	.6646	.6625	.6605	.6584	.6564	.6544	.6523	.6503	.6483	.6463	.6443	.6423
12.00	.6403	.6384	.6364	.6344	.6325	.6305	.6286	.6266	.6247	.6227	.6208	.6189
13.00	.6170	.6151	.6132	.6113	.6094	.6075	.6056	.6038	.6019	.6000	.5982	.5963
14.00	.5945	.5927	.5908	.5890	.5872	.5854	.5836	.5817	.5800	.5782	.5764	.5746

HALF-LIFE 18.66 DAYS CALCULATION INTERVAL 2.0 HOURS

	HOURS											
DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
15.00	.5728	.5710	.5693	.5675	.5658	.5640	.5623	.5605	.5588	.5571	.5554	.5536
16.00	.5519	.5502	.5485	.5468	.5451	.5435	.5418	.5401	.5384	.5368	.5351	.5335
17.00	.5318	.5302	.5285	.5269	.5253	.5236	.5220	.5204	.5188	.5172	.5156	.5140
18.00	.5124	.5108	.5092	.5077	.5061	.5045	.5030	.5014	.4999	.4983	.4968	.4953
19.00	.4937	.4922	.4907	.4892	.4876	.4861	.4846	.4831	.4816	.4802	.4787	.4772
20.00	.4757	.4743	.4728	.4713	.4699	.4684	.4670	.4655	.4641	.4627	.4612	.4598
21.00	.4584	.4570	.4555	.4541	.4527	.4513	.4499	.4485	.4472	.4458	.4444	.4430
22.00	.4417	.4403	.4389	.4376	.4362	.4349	.4335	.4322	.4309	.4295	.4282	.4269
23.00	.4256	.4242	.4229	.4216	.4203	.4190	.4177	.4164	.4151	.4139	.4126	.4113
24.00	.4100	.4088	.4075	.4062	.4050	.4037	.4025	.4012	.4000	.3988	.3975	.3963
25.00	.3951	.3939	.3926	.3914	.3902	.3890	.3878	.3866	.3854	.3842	.3830	.3819
26.00	.3807	.3795	.3783	.3772	.3760	.3748	.3737	.3725	.3714	.3702	.3691	.3679
27.00	.3668	.3657	.3645	.3634	.3623	.3612	.3600	.3589	.3578	.3567	.3556	.3545
28.00	.3534	.3523	.3512	.3502	.3491	.3480	.3469	.3458	.3448	.3437	.3426	.3416
29.00	.3405	.3395	.3384	.3374	.3363	.3353	.3343	.3332	.3322	.3312	.3302	.3291
30.00	.3281	.3271	.3261	.3251	.3241	.3231	.3221	.3211	.3201	.3191	.3181	.3171
31.00	.3162	.3152	.3142	.3132	.3123	.3113	.3103	.3094	.3084	.3075	.3065	.3056
32.00	.3046	.3037	.3027	.3018	.3009	.2999	.2990	.2981	.2972	.2963	.2953	.2944
33.00	.2935	.2926	.2917	.2908	.2899	.2890	.2881	.2872	.2863	.2855	.2846	.2837
34.00	.2828	.2819	.2811	.2802	.2793	.2785	.2776	.2768	.2759	.2750	.2742	.2733
35.00	.2725	.2717	.2708	.2700	.2691	.2683	.2675	.2667	.2658	.2650	.2642	.2634
36.00	.2626	.2618	.2609	.2601	.2593	.2585	.2577	.2569	.2561	.2553	.2546	.2538
37.00	.2530	.2522	.2514	.2507	.2499	.2491	.2483	.2476	.2468	.2460	.2453	.2445
38.00	.2438	.2430	.2423	.2415	.2408	.2400	.2393	.2385	.2378	.2371	.2363	.2356
39.00	.2349	.2341	.2334	.2327	.2320	.2313	.2306	.2298	.2291	.2284	.2277	.2270
40.00	.2263	.2256	.2249	.2242	.2235	.2228	.2221	.2215	.2208	.2201	.2194	.2187
41.00	.2181	.2174	.2167	.2160	.2154	.2147	.2140	.2134	.2127	.2121	.2114	.2108
42.00	.2101	.2095	.2088	.2082	.2075	.2069	.2062	.2056	.2050	.2043	.2037	.2031
43.00	.2024	.2018	.2012	.2006	.2000	.1993	.1987	.1981	.1975	.1969	.1963	.1957
44.00	.1951	.1945	.1939	.1933	.1927	.1921	.1915	.1909	.1903	.1897	.1891	.1885
45.00	.1880	.1874	.1868	.1862	.1856	.1851	.1845	.1839	.1834	.1828	.1822	.1817
46.00	.1811	.1805	.1800	.1794	.1789	.1783	.1778	.1772	.1767	.1761	.1756	.1750
47.00	.1745	.1740	.1734	.1729	.1723	.1718	.1713	.1708	.1702	.1697	.1692	.1687
48.00	.1681	.1676	.1671	.1666	.1661	.1655	.1650	.1645	.1640	.1635	.1630	.1625
49.00	.1620	.1615	.1610	.1605	.1600	.1595	.1590	.1585	.1580	.1575	.1571	.1566
50.00	.1561	.1556	.1551	.1546	.1542	.1537	.1532	.1527	.1523	.1518	.1513	.1509
51.00	.1504	.1499	.1495	.1490	.1485	.1481	.1476	.1472	.1467	.1463	.1458	.1454
52.00	.1449	.1445	.1440	.1436	.1431	.1427	.1422	.1418	.1414	.1409	.1405	.1401
53.00	.1396	.1392	.1388	.1383	.1379	.1375	.1371	.1366	.1362	.1358	.1354	.1350
54.00	.1345	.1341	.1337	.1333	.1329	.1325	.1321	.1317	.1312	.1308	.1304	.1300
55.00	.1296	.1292	.1288	.1284	.1280	.1276	.1272	.1269	.1265	.1261	.1257	.1253
56.00	.1249	.1245	.1241	.1238	.1234	.1230	.1226	.1222	.1219	.1215	.1211	.1207
57.00	.1204	.1200	.1196	.1192	.1189	.1185	.1181	.1178	.1174	.1170	.1167	.1163
58.00	.1160	.1156	.1152	.1149	.1145	.1142	.1138	.1135	.1131	.1128	.1124	.1121
59.00	.1117	.1114	.1110	.1107	.1104	.1100	.1097	.1093	.1090	.1087	.1083	.1080
60.00	.1077	.1073	.1070	.1067	.1063	.1060	.1057	.1054	.1050	.1047	.1044	.1041
61.00	.1037	.1034	.1031	.1028	.1025	.1021	.1018	.1015	.1012	.1009	.1006	.1003
62.00	.1000	.0996	.0993	.0990	.0987	.0984	.0981	.0978	.0975	.0972	.0969	.0966
63.00	.0963	.0960	.0957	.0954	.0951	.0948	.0945	.0942	.0940	.0937	.0934	.0931
64.00	.0928	.0925	.0922	.0919	.0917	.0914	.0911	.0908	.0905	.0902	.0900	.0897
65.00	.0894	.0891	.0889	.0886	.0883	.0880	.0878	.0875	.0872	.0870	.0867	.0864
66.00	.0862	.0859	.0856	.0854	.0851	.0848	.0846	.0843	.0840	.0838	.0835	.0833
67.00	.0830	.0828	.0825	.0822	.0820	.0817	.0815	.0812	.0810	.0807	.0805	.0802
68.00	.0800	.0797	.0795	.0792	.0790	.0788	.0785	.0783	.0780	.0778	.0775	.0773

SR - 85

HALF-LIFE 64.00 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9964	.9928	.9892	.9857	.9821	.9786	.9750	.9715	.9680	.9645	.9611
4.00	.9576	.9542	.9507	.9473	.9439	.9405	.9371	.9337	.9303	.9270	.9236	.9203
8.00	.9170	.9137	.9104	.9071	.9039	.9006	.8974	.8941	.8909	.8877	.8845	.8813
12.00	.8781	.8750	.8718	.8687	.8655	.8624	.8593	.8562	.8531	.8501	.8470	.8439
16.00	.8409	.8379	.8348	.8318	.8288	.8259	.8229	.8199	.8170	.8140	.8111	.8082
20.00	.8052	.8023	.7995	.7966	.7937	.7908	.7880	.7852	.7823	.7795	.7767	.7739
24.00	.7711	.7683	.7656	.7628	.7601	.7573	.7546	.7519	.7492	.7465	.7438	.7411
28.00	.7384	.7358	.7331	.7305	.7278	.7252	.7226	.7200	.7174	.7148	.7122	.7097
32.00	.7071	.7046	.7020	.6995	.6970	.6945	.6920	.6895	.6870	.6845	.6820	.6796
36.00	.6771	.6747	.6723	.6698	.6674	.6650	.6626	.6602	.6579	.6555	.6531	.6508
40.00	.6484	.6461	.6438	.6414	.6391	.6368	.6345	.6322	.6300	.6277	.6254	.6232
44.00	.6209	.6187	.6165	.6142	.6120	.6098	.6076	.6054	.6033	.6011	.5989	.5968
48.00	.5946	.5925	.5903	.5882	.5861	.5840	.5819	.5798	.5777	.5756	.5735	.5715
52.00	.5694	.5673	.5653	.5633	.5612	.5592	.5572	.5552	.5532	.5512	.5492	.5472
56.00	.5453	.5433	.5413	.5394	.5374	.5355	.5336	.5316	.5297	.5278	.5259	.5240
60.00	.5221	.5203	.5184	.5165	.5147	.5128	.5109	.5091	.5073	.5054	.5036	.5018
64.00	.5000	.4982	.4964	.4946	.4928	.4911	.4893	.4875	.4858	.4840	.4823	.4805
68.00	.4788	.4771	.4754	.4736	.4719	.4702	.4685	.4669	.4652	.4635	.4618	.4602
72.00	.4585	.4568	.4552	.4536	.4519	.4503	.4487	.4471	.4454	.4438	.4422	.4407
76.00	.4391	.4375	.4359	.4343	.4328	.4312	.4297	.4281	.4266	.4250	.4235	.4220
80.00	.4204	.4189	.4174	.4159	.4144	.4129	.4114	.4100	.4085	.4070	.4055	.4041
84.00	.4026	.4012	.3997	.3983	.3969	.3954	.3940	.3926	.3912	.3898	.3883	.3869
88.00	.3856	.3842	.3828	.3814	.3800	.3787	.3773	.3759	.3746	.3732	.3719	.3705
92.00	.3692	.3679	.3666	.3652	.3639	.3626	.3613	.3600	.3587	.3574	.3561	.3548
96.00	.3536	.3523	.3510	.3497	.3485	.3472	.3460	.3447	.3435	.3423	.3410	.3398
100.00	.3386	.3373	.3361	.3349	.3337	.3325	.3313	.3301	.3289	.3277	.3266	.3254
104.00	.3242	.3230	.3219	.3207	.3196	.3184	.3173	.3161	.3150	.3138	.3127	.3116
108.00	.3105	.3093	.3082	.3071	.3060	.3049	.3038	.3027	.3016	.3005	.2995	.2984
112.00	.2973	.2962	.2952	.2941	.2930	.2920	.2909	.2899	.2888	.2878	.2868	.2857
116.00	.2847	.2837	.2826	.2816	.2806	.2796	.2786	.2776	.2766	.2756	.2746	.2736
120.00	.2726	.2716	.2707	.2697	.2687	.2677	.2668	.2658	.2649	.2639	.2630	.2620
124.00	.2611	.2601	.2592	.2583	.2573	.2564	.2555	.2546	.2536	.2527	.2518	.2509
128.00	.2500	.2491	.2482	.2473	.2464	.2455	.2446	.2438	.2429	.2420	.2411	.2403
132.00	.2394	.2385	.2377	.2368	.2360	.2351	.2343	.2334	.2326	.2317	.2309	.2301
136.00	.2293	.2284	.2276	.2268	.2260	.2251	.2243	.2235	.2227	.2219	.2211	.2203
140.00	.2195	.2187	.2180	.2172	.2164	.2156	.2148	.2141	.2133	.2125	.2117	.2110
144.00	.2102	.2095	.2087	.2080	.2072	.2065	.2057	.2050	.2042	.2035	.2028	.2020
148.00	.2013	.2006	.1999	.1991	.1984	.1977	.1970	.1963	.1956	.1949	.1942	.1935
152.00	.1928	.1921	.1914	.1907	.1900	.1893	.1886	.1880	.1873	.1866	.1859	.1853
156.00	.1846	.1839	.1833	.1826	.1820	.1813	.1806	.1800	.1793	.1787	.1781	.1774
160.00	.1768	.1761	.1755	.1749	.1742	.1736	.1730	.1724	.1717	.1711	.1705	.1699
164.00	.1693	.1687	.1681	.1675	.1669	.1663	.1657	.1651	.1645	.1639	.1633	.1627
168.00	.1621	.1615	.1609	.1604	.1598	.1592	.1586	.1581	.1575	.1569	.1564	.1558
172.00	.1552	.1547	.1541	.1536	.1530	.1525	.1519	.1514	.1508	.1503	.1497	.1492
176.00	.1487	.1481	.1476	.1470	.1465	.1460	.1455	.1449	.1444	.1439	.1434	.1429
180.00	.1423	.1418	.1413	.1408	.1403	.1398	.1393	.1388	.1383	.1378	.1373	.1368
184.00	.1363	.1358	.1353	.1348	.1344	.1339	.1334	.1329	.1324	.1320	.1315	.1310
188.00	.1305	.1301	.1296	.1291	.1287	.1282	.1277	.1273	.1268	.1264	.1259	.1255
192.00	.1250	.1245	.1241	.1237	.1232	.1228	.1223	.1219	.1214	.1210	.1206	.1201
196.00	.1197	.1193	.1188	.1184	.1180	.1176	.1171	.1167	.1163	.1159	.1155	.1150
200.00	.1146	.1142	.1138	.1134	.1130	.1126	.1122	.1118	.1114	.1110	.1106	.1102
204.00	.1098	.1094	.1090	.1086	.1082	.1078	.1074	.1070	.1066	.1063	.1059	.1055
208.00	.1051	.1047	.1044	.1040	.1036	.1032	.1029	.1025	.1021	.1018	.1014	.1010
212.00	.1007	.1003	.0999	.0996	.0992	.0989	.0985	.0981	.0978	.0974	.0971	.0967
216.00	.0964	.0960	.0957	.0953	.0950	.0947	.0943	.0940	.0936	.0933	.0930	.0926

HALF-LIFE 64.00 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
						HOURS						
220.00	.0923	.0920	.0916	.0913	.0910	.0907	.0903	.0900	.0897	.0894	.0890	.0887
224.00	.0884	.0881	.0878	.0874	.0871	.0868	.0865	.0862	.0859	.0856	.0853	.0849
228.00	.0846	.0843	.0840	.0837	.0834	.0831	.0828	.0825	.0822	.0819	.0816	.0813
232.00	.0811	.0808	.0805	.0802	.0799	.0796	.0793	.0790	.0787	.0785	.0782	.0779
236.00	.0776	.0773	.0771	.0768	.0765	.0762	.0760	.0757	.0754	.0751	.0749	.0746
240.00	.0743	.0741	.0738	.0735	.0733	.0730	.0727	.0725	.0722	.0719	.0717	.0714
244.00	.0712	.0709	.0707	.0704	.0702	.0699	.0696	.0694	.0691	.0689	.0687	.0684
248.00	.0682	.0679	.0677	.0674	.0672	.0669	.0667	.0665	.0662	.0660	.0657	.0655
252.00	.0653	.0650	.0648	.0646	.0643	.0641	.0639	.0636	.0634	.0632	.0630	.0627
256.00	.0625	.0623	.0621	.0618	.0616	.0614	.0612	.0609	.0607	.0605	.0603	.0601
260.00	.0599	.0596	.0594	.0592	.0590	.0588	.0586	.0584	.0581	.0579	.0577	.0575
264.00	.0573	.0571	.0569	.0567	.0565	.0563	.0561	.0559	.0557	.0555	.0553	.0551
268.00	.0549	.0547	.0545	.0543	.0541	.0539	.0537	.0535	.0533	.0531	.0529	.0527
272.00	.0526	.0524	.0522	.0520	.0518	.0516	.0514	.0512	.0511	.0509	.0507	.0505
276.00	.0503	.0501	.0500	.0498	.0496	.0494	.0492	.0491	.0489	.0487	.0485	.0484
280.00	.0482	.0480	.0478	.0477	.0475	.0473	.0472	.0470	.0468	.0467	.0465	.0463
284.00	.0462	.0460	.0458	.0457	.0455	.0453	.0452	.0450	.0448	.0447	.0445	.0444
288.00	.0442	.0440	.0439	.0437	.0436	.0434	.0432	.0431	.0429	.0428	.0426	.0425
292.00	.0423	.0422	.0420	.0419	.0417	.0416	.0414	.0413	.0411	.0410	.0408	.0407
296.00	.0405	.0404	.0402	.0401	.0399	.0398	.0397	.0395	.0394	.0392	.0391	.0389
300.00	.0388	.0387	.0385	.0384	.0383	.0381	.0380	.0378	.0377	.0376	.0374	.0373
304.00	.0372	.0370	.0369	.0368	.0366	.0365	.0364	.0362	.0361	.0360	.0358	.0357
308.00	.0356	.0355	.0353	.0352	.0351	.0350	.0348	.0347	.0346	.0344	.0343	.0342
312.00	.0341	.0340	.0338	.0337	.0336	.0335	.0333	.0332	.0331	.0330	.0329	.0328
316.00	.0326	.0325	.0324	.0323	.0322	.0320	.0319	.0318	.0317	.0316	.0315	.0314
320.00	.0313	.0311	.0310	.0309	.0308	.0307	.0306	.0305	.0304	.0303	.0301	.0300
324.00	.0299	.0298	.0297	.0296	.0295	.0294	.0293	.0292	.0291	.0290	.0289	.0288
328.00	.0287	.0286	.0285	.0283	.0282	.0281	.0280	.0279	.0278	.0277	.0276	.0275
332.00	.0274	.0273	.0272	.0271	.0270	.0270	.0269	.0268	.0267	.0266	.0265	.0264
336.00	.0263	.0262	.0261	.0260	.0259	.0258	.0257	.0256	.0255	.0254	.0253	.0253
340.00	.0252	.0251	.0250	.0249	.0248	.0247	.0246	.0245	.0244	.0244	.0243	.0242
344.00	.0241	.0240	.0239	.0238	.0238	.0237	.0236	.0235	.0234	.0233	.0232	.0232
348.00	.0231	.0230	.0229	.0228	.0227	.0227	.0226	.0225	.0224	.0223	.0223	.0222
352.00	.0221	.0220	.0219	.0219	.0218	.0217	.0216	.0215	.0215	.0214	.0213	.0212
356.00	.0212	.0211	.0210	.0209	.0209	.0208	.0207	.0206	.0206	.0205	.0204	.0203
360.00	.0203	.0202	.0201	.0200	.0200	.0199	.0198	.0198	.0197	.0196	.0195	.0195
364.00	.0194	.0193	.0193	.0192	.0191	.0191	.0190	.0189	.0189	.0188	.0187	.0186
368.00	.0186	.0185	.0184	.0184	.0183	.0182	.0182	.0181	.0181	.0180	.0179	.0179
372.00	.0178	.0177	.0177	.0176	.0175	.0175	.0174	.0173	.0173	.0172	.0172	.0171
376.00	.0170	.0170	.0169	.0169	.0168	.0167	.0167	.0166	.0166	.0165	.0164	.0164
380.00	.0163	.0163	.0162	.0161	.0161	.0160	.0160	.0159	.0159	.0158	.0157	.0157
384.00	.0156	.0156	.0155	.0155	.0154	.0153	.0153	.0152	.0152	.0151	.0151	.0150
388.00	.0150	.0149	.0149	.0148	.0147	.0147	.0146	.0146	.0145	.0145	.0144	.0144
392.00	.0143	.0143	.0142	.0142	.0141	.0141	.0140	.0140	.0139	.0139	.0138	.0138
396.00	.0137	.0137	.0136	.0136	.0135	.0135	.0134	.0134	.0133	.0133	.0132	.0132
400.00	.0131	.0131	.0130	.0130	.0130	.0129	.0129	.0128	.0128	.0127	.0127	.0126
404.00	.0126	.0125	.0125	.0124	.0124	.0124	.0123	.0123	.0122	.0122	.0121	.0121
408.00	.0120	.0120	.0120	.0119	.0119	.0118	.0118	.0117	.0117	.0117	.0116	.0116
412.00	.0115	.0115	.0115	.0114	.0114	.0113	.0113	.0112	.0112	.0112	.0111	.0111
416.00	.0110	.0110	.0110	.0109	.0109	.0109	.0108	.0108	.0107	.0107	.0107	.0106
420.00	.0106	.0105	.0105	.0105	.0104	.0104	.0104	.0103	.0103	.0102	.0102	.0102
424.00	.0101	.0101	.0101	.0100	.0100	.0100	.0099	.0099	.0098	.0098	.0098	.0097
428.00	.0097	.0097	.0096	.0096	.0096	.0095	.0095	.0095	.0094	.0094	.0094	.0093
432.00	.0093	.0093	.0092	.0092	.0092	.0091	.0091	.0091	.0090	.0090	.0090	.0089
436.00	.0089	.0089	.0088	.0088	.0088	.0087	.0087	.0087	.0086	.0086	.0086	.0086

SR - 85

HALF-LIFE 64.00 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
440.00	.0085	.0085	.0085	.0084	.0084	.0084	.0083	.0083	.0083	.0082	.0082	.0082
444.00	.0082	.0081	.0081	.0081	.0080	.0080	.0080	.0080	.0079	.0079	.0079	.0078

SR - 87M

HALF-LIFE 2.83 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9959	.9919	.9878	.9838	.9798	.9758	.9718	.9679	.9639	.9600	.9561
.20	.9522	.9483	.9445	.9406	.9368	.9330	.9292	.9254	.9216	.9178	.9141	.9104
.40	.9067	.9030	.8993	.8956	.8920	.8884	.8847	.8811	.8775	.8740	.8704	.8669
.60	.8633	.8598	.8563	.8528	.8493	.8459	.8424	.8390	.8356	.8322	.8288	.8254
.80	.8221	.8187	.8154	.8121	.8087	.8055	.8022	.7989	.7956	.7924	.7892	.7860
1.00	.7828	.7796	.7764	.7732	.7701	.7669	.7638	.7607	.7576	.7545	.7515	.7484
1.20	.7453	.7423	.7393	.7363	.7333	.7303	.7273	.7243	.7214	.7185	.7155	.7126
1.40	.7097	.7068	.7039	.7011	.6982	.6954	.6925	.6897	.6869	.6841	.6813	.6785
1.60	.6758	.6730	.6703	.6676	.6648	.6621	.6594	.6567	.6541	.6514	.6488	.6461
1.80	.6435	.6409	.6382	.6356	.6331	.6305	.6279	.6253	.6228	.6203	.6177	.6152
2.00	.6127	.6102	.6077	.6053	.6028	.6003	.5979	.5955	.5930	.5906	.5882	.5858
2.20	.5834	.5810	.5787	.5763	.5740	.5716	.5693	.5670	.5647	.5624	.5601	.5578
2.40	.5555	.5533	.5510	.5488	.5465	.5443	.5421	.5399	.5377	.5355	.5333	.5311
2.60	.5290	.5268	.5247	.5225	.5204	.5183	.5162	.5141	.5120	.5099	.5078	.5057
2.80	.5037	.5016	.4996	.4976	.4955	.4935	.4915	.4895	.4875	.4855	.4835	.4816
3.00	.4796	.4777	.4757	.4738	.4718	.4699	.4680	.4661	.4642	.4623	.4604	.4585
3.20	.4567	.4548	.4530	.4511	.4493	.4475	.4456	.4438	.4420	.4402	.4384	.4366
3.40	.4348	.4331	.4313	.4296	.4278	.4261	.4243	.4226	.4209	.4192	.4175	.4158
3.60	.4141	.4124	.4107	.4090	.4074	.4057	.4040	.4024	.4008	.3991	.3975	.3959
3.80	.3943	.3927	.3911	.3895	.3879	.3863	.3847	.3832	.3816	.3800	.3785	.3770
4.00	.3754	.3739	.3724	.3708	.3693	.3678	.3663	.3648	.3634	.3619	.3604	.3589
4.20	.3575	.3560	.3546	.3531	.3517	.3502	.3488	.3474	.3460	.3446	.3432	.3418
4.40	.3404	.3390	.3376	.3362	.3349	.3335	.3321	.3308	.3294	.3281	.3268	.3254
4.60	.3241	.3228	.3215	.3202	.3189	.3176	.3163	.3150	.3137	.3124	.3111	.3099
4.80	.3086	.3074	.3061	.3049	.3036	.3024	.3011	.2999	.2987	.2975	.2963	.2951
5.00	.2939	.2927	.2915	.2903	.2891	.2879	.2868	.2856	.2844	.2833	.2821	.2810
5.20	.2798	.2787	.2775	.2764	.2753	.2742	.2730	.2719	.2708	.2697	.2686	.2675
5.40	.2664	.2654	.2643	.2632	.2621	.2611	.2600	.2589	.2579	.2568	.2558	.2547
5.60	.2537	.2527	.2516	.2506	.2496	.2486	.2476	.2466	.2455	.2445	.2436	.2426
5.80	.2416	.2406	.2396	.2386	.2377	.2367	.2357	.2348	.2338	.2329	.2319	.2310
6.00	.2300	.2291	.2282	.2272	.2263	.2254	.2245	.2235	.2226	.2217	.2208	.2199
6.20	.2190	.2181	.2172	.2164	.2155	.2146	.2137	.2129	.2120	.2111	.2103	.2094
6.40	.2086	.2077	.2069	.2060	.2052	.2043	.2035	.2027	.2019	.2010	.2002	.1994
6.60	.1986	.1978	.1970	.1962	.1954	.1946	.1938	.1930	.1922	.1914	.1906	.1899
6.80	.1891	.1883	.1876	.1868	.1860	.1853	.1845	.1838	.1830	.1823	.1815	.1808
7.00	.1801	.1793	.1786	.1779	.1771	.1764	.1757	.1750	.1743	.1736	.1729	.1721
7.20	.1714	.1707	.1701	.1694	.1687	.1680	.1673	.1666	.1659	.1653	.1646	.1639
7.40	.1633	.1626	.1619	.1613	.1606	.1600	.1593	.1587	.1580	.1574	.1567	.1561
7.60	.1554	.1548	.1542	.1536	.1529	.1523	.1517	.1511	.1505	.1498	.1492	.1486
7.80	.1480	.1474	.1468	.1462	.1456	.1450	.1444	.1438	.1433	.1427	.1421	.1415
8.00	.1409	.1404	.1398	.1392	.1387	.1381	.1375	.1370	.1364	.1359	.1353	.1348
8.20	.1342	.1337	.1331	.1326	.1320	.1315	.1310	.1304	.1299	.1294	.1288	.1283
8.40	.1278	.1273	.1267	.1262	.1257	.1252	.1247	.1242	.1237	.1232	.1227	.1222
8.60	.1217	.1212	.1207	.1202	.1197	.1192	.1187	.1182	.1178	.1173	.1168	.1163
8.80	.1159	.1154	.1149	.1145	.1140	.1135	.1131	.1126	.1121	.1117	.1112	.1108

SR - 87M

HALF-LIFE 2.83 HOURS CALCULATION INTERVAL 1.0 MINUTES

					MINUTES							
HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
9.00	.1103	.1099	.1094	.1090	.1085	.1081	.1077	.1072	.1068	.1063	.1059	.1055
9.20	.1050	.1046	.1042	.1038	.1033	.1029	.1025	.1021	.1017	.1013	.1008	.1004
9.40	.1000	.0996	.0992	.0988	.0984	.0980	.0976	.0972	.0968	.0964	.0960	.0956
9.60	.0952	.0949	.0945	.0941	.0937	.0933	.0929	.0926	.0922	.0918	.0914	.0911
9.80	.0907	.0903	.0900	.0896	.0892	.0889	.0885	.0881	.0878	.0874	.0871	.0867
10.00	.0864	.0860	.0857	.0853	.0850	.0846	.0843	.0839	.0836	.0832	.0829	.0826
10.20	.0822	.0819	.0816	.0812	.0809	.0806	.0802	.0799	.0796	.0793	.0789	.0786

SR - 89

HALF-LIFE 52.70 DAYS CALCULATION INTERVAL 8.0 HOURS

					HOURS							
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9956	.9913	.9869	.9826	.9783	.9740	.9698	.9655	.9613	.9571	.9529
4.00	.9487	.9446	.9405	.9364	.9323	.9282	.9241	.9201	.9160	.9120	.9081	.9041
8.00	.9001	.8962	.8923	.8884	.8845	.8806	.8768	.8729	.8691	.8653	.8615	.8577
12.00	.8540	.8503	.8465	.8428	.8391	.8355	.8318	.8282	.8246	.8210	.8174	.8138
16.00	.8102	.8067	.8032	.7996	.7961	.7927	.7892	.7857	.7823	.7789	.7755	.7721
20.00	.7687	.7653	.7620	.7587	.7553	.7520	.7487	.7455	.7422	.7390	.7357	.7325
24.00	.7293	.7261	.7229	.7198	.7166	.7135	.7104	.7073	.7042	.7011	.6980	.6950
28.00	.6919	.6889	.6859	.6829	.6799	.6769	.6740	.6710	.6681	.6652	.6622	.6593
32.00	.6565	.6536	.6507	.6479	.6451	.6422	.6394	.6366	.6338	.6311	.6283	.6256
36.00	.6228	.6201	.6174	.6147	.6120	.6093	.6067	.6040	.6014	.5987	.5961	.5935
40.00	.5909	.5883	.5857	.5832	.5806	.5781	.5756	.5730	.5705	.5680	.5656	.5631
44.00	.5606	.5582	.5557	.5533	.5509	.5485	.5461	.5437	.5413	.5389	.5366	.5342
48.00	.5319	.5296	.5272	.5249	.5226	.5204	.5181	.5158	.5136	.5113	.5091	.5068
52.00	.5046	.5024	.5002	.4980	.4959	.4937	.4915	.4894	.4872	.4851	.4830	.4809
56.00	.4788	.4767	.4746	.4725	.4704	.4684	.4663	.4643	.4623	.4602	.4582	.4562
60.00	.4542	.4522	.4503	.4483	.4463	.4444	.4424	.4405	.4386	.4367	.4347	.4328
64.00	.4309	.4291	.4272	.4253	.4235	.4216	.4198	.4179	.4161	.4143	.4125	.4107
68.00	.4089	.4071	.4053	.4035	.4018	.4000	.3982	.3965	.3948	.3930	.3913	.3896
72.00	.3879	.3862	.3845	.3828	.3812	.3795	.3778	.3762	.3745	.3729	.3713	.3696
76.00	.3680	.3664	.3648	.3632	.3616	.3600	.3585	.3569	.3553	.3538	.3522	.3507
80.00	.3492	.3476	.3461	.3446	.3431	.3416	.3401	.3386	.3371	.3357	.3342	.3327
84.00	.3313	.3298	.3284	.3269	.3255	.3241	.3227	.3213	.3199	.3185	.3171	.3157
88.00	.3143	.3129	.3115	.3102	.3088	.3075	.3061	.3048	.3035	.3021	.3008	.2995
92.00	.2982	.2969	.2956	.2943	.2930	.2917	.2904	.2892	.2879	.2866	.2854	.2841
96.00	.2829	.2817	.2804	.2792	.2780	.2768	.2756	.2744	.2732	.2720	.2708	.2696
100.00	.2684	.2672	.2661	.2649	.2637	.2626	.2614	.2603	.2592	.2580	.2569	.2558
104.00	.2546	.2535	.2524	.2513	.2502	.2491	.2480	.2469	.2459	.2448	.2437	.2427
108.00	.2416	.2405	.2395	.2384	.2374	.2364	.2353	.2343	.2333	.2322	.2312	.2302
112.00	.2292	.2282	.2272	.2262	.2252	.2242	.2233	.2223	.2213	.2203	.2194	.2184
116.00	.2175	.2165	.2156	.2146	.2137	.2128	.2118	.2109	.2100	.2091	.2081	.2072
120.00	.2063	.2054	.2045	.2036	.2027	.2018	.2010	.2001	.1992	.1983	.1975	.1966
124.00	.1957	.1949	.1940	.1932	.1923	.1915	.1907	.1898	.1890	.1882	.1873	.1865
128.00	.1857	.1849	.1841	.1833	.1825	.1817	.1809	.1801	.1793	.1785	.1777	.1770
132.00	.1762	.1754	.1747	.1739	.1731	.1724	.1716	.1709	.1701	.1694	.1686	.1679
136.00	.1672	.1664	.1657	.1650	.1643	.1635	.1628	.1621	.1614	.1607	.1600	.1593
140.00	.1586	.1579	.1572	.1565	.1558	.1552	.1545	.1538	.1531	.1525	.1518	.1511
144.00	.1505	.1498	.1492	.1485	.1479	.1472	.1466	.1459	.1453	.1446	.1440	.1434
148.00	.1428	.1421	.1415	.1409	.1403	.1397	.1391	.1384	.1378	.1372	.1366	.1360
152.00	.1354	.1348	.1343	.1337	.1331	.1325	.1319	.1313	.1308	.1302	.1296	.1291
156.00	.1285	.1279	.1274	.1268	.1263	.1257	.1252	.1246	.1241	.1235	.1230	.1225

SR - 89

HALF-LIFE 52.70 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
160.00	.1219	.1214	.1209	.1203	.1198	.1193	.1187	.1182	.1177	.1172	.1167	.1162
164.00	.1157	.1152	.1147	.1142	.1137	.1132	.1127	.1122	.1117	.1112	.1107	.1102
168.00	.1097	.1093	.1088	.1083	.1078	.1074	.1069	.1064	.1060	.1055	.1050	.1046
172.00	.1041	.1037	.1032	.1028	.1023	.1019	.1014	.1010	.1005	.1001	.0996	.0992
176.00	.0988	.0983	.0979	.0975	.0971	.0966	.0962	.0958	.0954	.0950	.0945	.0941
180.00	.0937	.0933	.0929	.0925	.0921	.0917	.0913	.0909	.0905	.0901	.0897	.0893
184.00	.0889	.0885	.0881	.0878	.0874	.0870	.0866	.0862	.0858	.0855	.0851	.0847
188.00	.0844	.0840	.0836	.0833	.0829	.0825	.0822	.0818	.0814	.0811	.0807	.0804
192.00	.0800	.0797	.0793	.0790	.0786	.0783	.0780	.0776	.0773	.0769	.0766	.0763
196.00	.0759	.0756	.0753	.0749	.0746	.0743	.0740	.0736	.0733	.0730	.0727	.0724
200.00	.0720	.0717	.0714	.0711	.0708	.0705	.0702	.0699	.0696	.0693	.0689	.0686
204.00	.0683	.0680	.0678	.0675	.0672	.0669	.0666	.0663	.0660	.0657	.0654	.0651
208.00	.0648	.0646	.0643	.0640	.0637	.0634	.0632	.0629	.0626	.0623	.0621	.0618
212.00	.0615	.0613	.0610	.0607	.0605	.0602	.0599	.0597	.0594	.0591	.0589	.0586
216.00	.0584	.0581	.0579	.0576	.0574	.0571	.0569	.0566	.0564	.0561	.0559	.0556
220.00	.0554	.0551	.0549	.0547	.0544	.0542	.0539	.0537	.0535	.0532	.0530	.0528
224.00	.0525	.0523	.0521	.0519	.0516	.0514	.0512	.0510	.0507	.0505	.0503	.0501
228.00	.0498	.0496	.0494	.0492	.0490	.0488	.0486	.0483	.0481	.0479	.0477	.0475
232.00	.0473	.0471	.0469	.0467	.0465	.0463	.0461	.0459	.0457	.0455	.0453	.0451
236.00	.0449	.0447	.0445	.0443	.0441	.0439	.0437	.0435	.0433	.0431	.0429	.0428
240.00	.0426	.0424	.0422	.0420	.0418	.0416	.0415	.0413	.0411	.0409	.0407	.0406
244.00	.0404	.0402	.0400	.0399	.0397	.0395	.0393	.0392	.0390	.0388	.0387	.0385
248.00	.0383	.0381	.0380	.0378	.0377	.0375	.0373	.0372	.0370	.0368	.0367	.0365
252.00	.0364	.0362	.0360	.0359	.0357	.0356	.0354	.0353	.0351	.0349	.0348	.0346
256.00	.0345	.0343	.0342	.0340	.0339	.0337	.0336	.0334	.0333	.0332	.0330	.0329
260.00	.0327	.0326	.0324	.0323	.0322	.0320	.0319	.0317	.0316	.0315	.0313	.0312
264.00	.0310	.0309	.0308	.0306	.0305	.0304	.0302	.0301	.0300	.0298	.0297	.0296
268.00	.0295	.0293	.0292	.0291	.0289	.0288	.0287	.0286	.0284	.0283	.0282	.0281
272.00	.0279	.0278	.0277	.0276	.0275	.0273	.0272	.0271	.0270	.0269	.0267	.0266
276.00	.0265	.0264	.0263	.0262	.0261	.0259	.0258	.0257	.0256	.0255	.0254	.0253
280.00	.0252	.0250	.0249	.0248	.0247	.0246	.0245	.0244	.0243	.0242	.0241	.0240
284.00	.0239	.0238	.0237	.0236	.0234	.0233	.0232	.0231	.0230	.0229	.0228	.0227
288.00	.0226	.0225	.0224	.0223	.0222	.0222	.0221	.0220	.0219	.0218	.0217	.0216
292.00	.0215	.0214	.0213	.0212	.0211	.0210	.0209	.0208	.0207	.0206	.0206	.0205
296.00	.0204	.0203	.0202	.0201	.0200	.0199	.0199	.0198	.0197	.0196	.0195	.0194
300.00	.0193	.0193	.0192	.0191	.0190	.0189	.0188	.0188	.0187	.0186	.0185	.0184
304.00	.0183	.0183	.0182	.0181	.0180	.0179	.0179	.0178	.0177	.0176	.0176	.0175
308.00	.0174	.0173	.0173	.0172	.0171	.0170	.0170	.0169	.0168	.0167	.0167	.0166
312.00	.0165	.0164	.0164	.0163	.0162	.0162	.0161	.0160	.0159	.0159	.0158	.0157
316.00	.0157	.0156	.0155	.0155	.0154	.0153	.0153	.0152	.0151	.0151	.0150	.0149
320.00	.0149	.0148	.0147	.0147	.0146	.0145	.0145	.0144	.0144	.0143	.0142	.0142
324.00	.0141	.0140	.0140	.0139	.0139	.0138	.0137	.0137	.0136	.0136	.0135	.0134
328.00	.0134	.0133	.0133	.0132	.0131	.0131	.0130	.0130	.0129	.0129	.0128	.0127
332.00	.0127	.0126	.0126	.0125	.0125	.0124	.0124	.0123	.0123	.0122	.0121	.0121
336.00	.0120	.0120	.0119	.0119	.0118	.0118	.0117	.0117	.0116	.0116	.0115	.0115
340.00	.0114	.0114	.0113	.0113	.0112	.0112	.0111	.0111	.0110	.0110	.0109	.0109
344.00	.0108	.0108	.0107	.0107	.0107	.0106	.0106	.0105	.0105	.0104	.0104	.0103
348.00	.0103	.0102	.0102	.0101	.0101	.0101	.0100	.0100	.0099	.0099	.0098	.0098
352.00	.0098	.0097	.0097	.0096	.0096	.0095	.0095	.0095	.0094	.0094	.0093	.0093
356.00	.0093	.0092	.0092	.0091	.0091	.0091	.0090	.0090	.0089	.0089	.0089	.0088
360.00	.0088	.0087	.0087	.0087	.0086	.0086	.0086	.0085	.0085	.0084	.0084	.0084
364.00	.0083	.0083	.0083	.0082	.0082	.0082	.0081	.0081	.0080	.0080	.0080	.0079

SR - 90

HALF-LIFE 27.70 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9979	.9959	.9938	.9918	.9898	.9877	.9857	.9837	.9817
300.0	.9796	.9776	.9756	.9736	.9716	.9696	.9676	.9656	.9637	.9617
600.0	.9597	.9577	.9558	.9538	.9518	.9499	.9479	.9460	.9440	.9421
900.0	.9402	.9382	.9363	.9344	.9325	.9305	.9286	.9267	.9248	.9229
1200.0	.9210	.9191	.9172	.9154	.9135	.9116	.9097	.9079	.9060	.9041
1500.0	.9023	.9004	.8986	.8967	.8949	.8930	.8912	.8894	.8876	.8857
1800.0	.8839	.8821	.8803	.8785	.8767	.8749	.8731	.8713	.8695	.8677
2100.0	.8659	.8641	.8624	.8606	.8588	.8571	.8553	.8535	.8518	.8500
2400.0	.8483	.8465	.8448	.8431	.8413	.8396	.8379	.8362	.8344	.8327
2700.0	.8310	.8293	.8276	.8259	.8242	.8225	.8208	.8191	.8175	.8158
3000.0	.8141	.8124	.8108	.8091	.8074	.8058	.8041	.8025	.8008	.7992
3300.0	.7975	.7959	.7943	.7926	.7910	.7894	.7877	.7861	.7845	.7829
3600.0	.7813	.7797	.7781	.7765	.7749	.7733	.7717	.7701	.7685	.7670
3900.0	.7654	.7638	.7622	.7607	.7591	.7576	.7560	.7544	.7529	.7514
4200.0	.7498	.7483	.7467	.7452	.7437	.7421	.7406	.7391	.7376	.7361
4500.0	.7345	.7330	.7315	.7300	.7285	.7270	.7255	.7240	.7226	.7211
4800.0	.7196	.7181	.7166	.7152	.7137	.7122	.7108	.7093	.7078	.7064
5100.0	.7049	.7035	.7020	.7006	.6992	.6977	.6963	.6949	.6934	.6920
5400.0	.6906	.6892	.6878	.6863	.6849	.6835	.6821	.6807	.6793	.6779
5700.0	.6765	.6751	.6738	.6724	.6710	.6696	.6682	.6669	.6655	.6641
6000.0	.6628	.6614	.6600	.6587	.6573	.6560	.6546	.6533	.6519	.6506
6300.0	.6493	.6479	.6466	.6453	.6439	.6426	.6413	.6400	.6387	.6374
6600.0	.6361	.6347	.6334	.6321	.6308	.6295	.6282	.6270	.6257	.6244
6900.0	.6231	.6218	.6205	.6193	.6180	.6167	.6155	.6142	.6129	.6117
7200.0	.6104	.6092	.6079	.6067	.6054	.6042	.6029	.6017	.6005	.5992
7500.0	.5980	.5968	.5955	.5943	.5931	.5919	.5907	.5894	.5882	.5870
7800.0	.5858	.5846	.5834	.5822	.5810	.5798	.5786	.5774	.5763	.5751
8100.0	.5739	.5727	.5715	.5704	.5692	.5680	.5669	.5657	.5645	.5634
8400.0	.5622	.5611	.5599	.5588	.5576	.5565	.5553	.5542	.5530	.5519
8700.0	.5508	.5496	.5485	.5474	.5463	.5451	.5440	.5429	.5418	.5407
9000.0	.5396	.5384	.5373	.5362	.5351	.5340	.5329	.5318	.5307	.5297
9300.0	.5286	.5275	.5264	.5253	.5242	.5232	.5221	.5210	.5199	.5189
9600.0	.5178	.5167	.5157	.5146	.5136	.5125	.5115	.5104	.5094	.5083
9900.0	.5073	.5062	.5052	.5041	.5031	.5021	.5010	.5000	.4990	.4980
10200.0	.4969	.4959	.4949	.4939	.4929	.4919	.4908	.4898	.4888	.4878
10500.0	.4868	.4858	.4848	.4838	.4828	.4818	.4809	.4799	.4789	.4779
10800.0	.4769	.4759	.4750	.4740	.4730	.4720	.4711	.4701	.4691	.4682
11100.0	.4672	.4662	.4653	.4643	.4634	.4624	.4615	.4605	.4596	.4586
11400.0	.4577	.4568	.4558	.4549	.4539	.4530	.4521	.4512	.4502	.4493
11700.0	.4484	.4475	.4465	.4456	.4447	.4438	.4429	.4420	.4411	.4402
12000.0	.4393	.4383	.4374	.4365	.4357	.4348	.4339	.4330	.4321	.4312
12300.0	.4303	.4294	.4285	.4277	.4268	.4259	.4250	.4242	.4233	.4224
12600.0	.4215	.4207	.4198	.4190	.4181	.4172	.4164	.4155	.4147	.4138
12900.0	.4130	.4121	.4113	.4104	.4096	.4087	.4079	.4071	.4062	.4054
13200.0	.4046	.4037	.4029	.4021	.4012	.4004	.3996	.3988	.3980	.3971
13500.0	.3963	.3955	.3947	.3939	.3931	.3923	.3915	.3907	.3899	.3891
13800.0	.3883	.3875	.3867	.3859	.3851	.3843	.3835	.3827	.3819	.3811
14100.0	.3804	.3796	.3788	.3780	.3772	.3765	.3757	.3749	.3741	.3734
14400.0	.3726	.3718	.3711	.3703	.3696	.3688	.3680	.3673	.3665	.3658
14700.0	.3650	.3643	.3635	.3628	.3620	.3613	.3605	.3598	.3591	.3583
15000.0	.3576	.3569	.3561	.3554	.3547	.3539	.3532	.3525	.3518	.3510
15300.0	.3503	.3496	.3489	.3482	.3474	.3467	.3460	.3453	.3446	.3439
15600.0	.3432	.3425	.3418	.3411	.3404	.3397	.3390	.3383	.3376	.3369
15900.0	.3362	.3355	.3348	.3341	.3334	.3328	.3321	.3314	.3307	.3300
16200.0	.3294	.3287	.3280	.3273	.3267	.3260	.3253	.3246	.3240	.3233

SR - 90

HALF-LIFE 27.70 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
16500.0	.3226	.3220	.3213	.3207	.3200	.3193	.3187	.3180	.3174	.3167
16800.0	.3161	.3154	.3148	.3141	.3135	.3128	.3122	.3116	.3109	.3103
17100.0	.3096	.3090	.3084	.3077	.3071	.3065	.3058	.3052	.3046	.3040
17400.0	.3033	.3027	.3021	.3015	.3009	.3002	.2996	.2990	.2984	.2978
17700.0	.2972	.2966	.2959	.2953	.2947	.2941	.2935	.2929	.2923	.2917
18000.0	.2911	.2905	.2899	.2893	.2887	.2881	.2875	.2870	.2864	.2858
18300.0	.2852	.2846	.2840	.2834	.2829	.2823	.2817	.2811	.2805	.2800
18600.0	.2794	.2788	.2782	.2777	.2771	.2765	.2760	.2754	.2748	.2743
18900.0	.2737	.2731	.2726	.2720	.2715	.2709	.2703	.2698	.2692	.2687
19200.0	.2681	.2676	.2670	.2665	.2659	.2654	.2648	.2643	.2638	.2632
19500.0	.2627	.2621	.2616	.2611	.2605	.2600	.2594	.2589	.2584	.2579
19800.0	.2573	.2568	.2563	.2557	.2552	.2547	.2542	.2536	.2531	.2526
20100.0	.2521	.2516	.2510	.2505	.2500	.2495	.2490	.2485	.2480	.2475
20400.0	.2470	.2464	.2459	.2454	.2449	.2444	.2439	.2434	.2429	.2424
20700.0	.2419	.2414	.2409	.2404	.2399	.2394	.2390	.2385	.2380	.2375
21000.0	.2370	.2365	.2360	.2355	.2351	.2346	.2341	.2336	.2331	.2327
21300.0	.2322	.2317	.2312	.2307	.2303	.2298	.2293	.2289	.2284	.2279
21600.0	.2274	.2270	.2265	.2260	.2256	.2251	.2247	.2242	.2237	.2233
21900.0	.2228	.2224	.2219	.2214	.2210	.2205	.2201	.2196	.2192	.2187
22200.0	.2183	.2178	.2174	.2169	.2165	.2160	.2156	.2152	.2147	.2143
22500.0	.2138	.2134	.2130	.2125	.2121	.2117	.2112	.2108	.2103	.2099
22800.0	.2095	.2091	.2086	.2082	.2078	.2073	.2069	.2065	.2061	.2056
23100.0	.2052	.2048	.2044	.2040	.2035	.2031	.2027	.2023	.2019	.2015
23400.0	.2010	.2006	.2002	.1998	.1994	.1990	.1986	.1982	.1978	.1974
23700.0	.1970	.1965	.1961	.1957	.1953	.1949	.1945	.1941	.1937	.1933
24000.0	.1929	.1925	.1921	.1918	.1914	.1910	.1906	.1902	.1898	.1894
24300.0	.1890	.1886	.1882	.1879	.1875	.1871	.1867	.1863	.1859	.1855
24600.0	.1852	.1848	.1844	.1840	.1836	.1833	.1829	.1825	.1821	.1818
24900.0	.1814	.1810	.1807	.1803	.1799	.1795	.1792	.1788	.1784	.1781
25200.0	.1777	.1773	.1770	.1766	.1762	.1759	.1755	.1752	.1748	.1744
25500.0	.1741	.1737	.1734	.1730	.1727	.1723	.1720	.1716	.1712	.1709
25800.0	.1705	.1702	.1698	.1695	.1691	.1688	.1685	.1681	.1678	.1674
26100.0	.1671	.1667	.1664	.1660	.1657	.1654	.1650	.1647	.1643	.1640
26400.0	.1637	.1633	.1630	.1627	.1623	.1620	.1617	.1613	.1610	.1607
26700.0	.1603	.1600	.1597	.1594	.1590	.1587	.1584	.1580	.1577	.1574
27000.0	.1571	.1568	.1564	.1561	.1558	.1555	.1551	.1548	.1545	.1542
27300.0	.1539	.1536	.1532	.1529	.1526	.1523	.1520	.1517	.1514	.1511
27600.0	.1507	.1504	.1501	.1498	.1495	.1492	.1489	.1486	.1483	.1480
27900.0	.1477	.1474	.1471	.1468	.1465	.1462	.1459	.1456	.1453	.1450
28200.0	.1447	.1444	.1441	.1438	.1435	.1432	.1429	.1426	.1423	.1420
28500.0	.1417	.1414	.1411	.1409	.1406	.1403	.1400	.1397	.1394	.1391
28800.0	.1388	.1386	.1383	.1380	.1377	.1374	.1371	.1369	.1366	.1363
29100.0	.1360	.1357	.1355	.1352	.1349	.1346	.1343	.1341	.1338	.1335
29400.0	.1332	.1330	.1327	.1324	.1322	.1319	.1316	.1313	.1311	.1308
29700.0	.1305	.1303	.1300	.1297	.1295	.1292	.1289	.1287	.1284	.1281
30000.0	.1279	.1276	.1273	.1271	.1268	.1266	.1263	.1260	.1258	.1255
30300.0	.1253	.1250	.1248	.1245	.1242	.1240	.1237	.1235	.1232	.1230
30600.0	.1227	.1225	.1222	.1220	.1217	.1215	.1212	.1210	.1207	.1205
30900.0	.1202	.1200	.1197	.1195	.1192	.1190	.1187	.1185	.1183	.1180
31200.0	.1178	.1175	.1173	.1171	.1168	.1166	.1163	.1161	.1159	.1156
31500.0	.1154	.1151	.1149	.1147	.1144	.1142	.1140	.1137	.1135	.1133
31800.0	.1130	.1128	.1126	.1123	.1121	.1119	.1116	.1114	.1112	.1110
32100.0	.1107	.1105	.1103	.1100	.1098	.1096	.1094	.1091	.1089	.1087
32400.0	.1085	.1083	.1080	.1078	.1076	.1074	.1071	.1069	.1067	.1065
32700.0	.1063	.1060	.1058	.1056	.1054	.1052	.1050	.1047	.1045	.1043

SR - 90

HALF-LIFE 27.70 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
33000.0	.1041	.1039	.1037	.1035	.1032	.1030	.1028	.1026	.1024	.1022
33300.0	.1020	.1018	.1016	.1014	.1011	.1009	.1007	.1005	.1003	.1001
33600.0	.0999	.0997	.0995	.0993	.0991	.0989	.0987	.0985	.0983	.0981
33900.0	.0979	.0977	.0975	.0973	.0971	.0969	.0967	.0965	.0963	.0961
34200.0	.0959	.0957	.0955	.0953	.0951	.0949	.0947	.0945	.0943	.0941
34500.0	.0939	.0937	.0935	.0934	.0932	.0930	.0928	.0926	.0924	.0922
34800.0	.0920	.0918	.0916	.0915	.0913	.0911	.0909	.0907	.0905	.0903
35100.0	.0901	.0900	.0898	.0896	.0894	.0892	.0890	.0889	.0887	.0885
35400.0	.0883	.0881	.0879	.0878	.0876	.0874	.0872	.0870	.0869	.0867
35700.0	.0865	.0863	.0862	.0860	.0858	.0856	.0854	.0853	.0851	.0849
36000.0	.0847	.0846	.0844	.0842	.0841	.0839	.0837	.0835	.0834	.0832
36300.0	.0830	.0829	.0827	.0825	.0823	.0822	.0820	.0818	.0817	.0815
36600.0	.0813	.0812	.0810	.0808	.0807	.0805	.0803	.0802	.0800	.0798

SR - 90

HALF-LIFE 27.70 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9753	.9512	.9277	.9048	.8824	.8606	.8393	.8186	.7983
10.0	.7786	.7594	.7406	.7223	.7045	.6870	.6701	.6535	.6374	.6216
20.0	.6062	.5913	.5767	.5624	.5485	.5349	.5217	.5088	.4963	.4840
30.0	.4720	.4604	.4490	.4379	.4271	.4165	.4062	.3962	.3864	.3768
40.0	.3675	.3585	.3496	.3410	.3325	.3243	.3163	.3085	.3009	.2934
50.0	.2862	.2791	.2722	.2655	.2589	.2525	.2463	.2402	.2343	.2285
60.0	.2228	.2173	.2119	.2067	.2016	.1966	.1918	.1870	.1824	.1779
70.0	.1735	.1692	.1650	.1609	.1570	.1531	.1493	.1456	.1420	.1385
80.0	.1351	.1317	.1285	.1253	.1222	.1192	.1163	.1134	.1106	.1078
90.0	.1052	.1026	.1000	.0976	.0952	.0928	.0905	.0883	.0861	.0840
100.0	.0819	.0799	.0779	.0760	.0741	.0723	.0705	.0687	.0670	.0654

SR - 91

HALF-LIFE 9.67 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9940	.9881	.9822	.9764	.9706	.9648	.9590	.9533	.9477	.9420	.9364
1.00	.9308	.9253	.9198	.9143	.9089	.9034	.8981	.8927	.8874	.8821	.8769	.8716
2.00	.8664	.8613	.8562	.8511	.8460	.8409	.8359	.8310	.8260	.8211	.8162	.8113
3.00	.8065	.8017	.7969	.7922	.7875	.7828	.7781	.7735	.7689	.7643	.7597	.7552
4.00	.7507	.7463	.7418	.7374	.7330	.7286	.7243	.7200	.7157	.7114	.7072	.7030
5.00	.6988	.6946	.6905	.6864	.6823	.6782	.6742	.6702	.6662	.6622	.6583	.6544
6.00	.6505	.6466	.6427	.6389	.6351	.6313	.6276	.6238	.6201	.6164	.6127	.6091
7.00	.6055	.6019	.5983	.5947	.5912	.5876	.5841	.5807	.5772	.5738	.5704	.5670
8.00	.5636	.5602	.5569	.5536	.5503	.5470	.5437	.5405	.5373	.5341	.5309	.5277
9.00	.5246	.5215	.5184	.5153	.5122	.5092	.5061	.5031	.5001	.4971	.4942	.4912
10.00	.4883	.4854	.4825	.4796	.4768	.4739	.4711	.4683	.4655	.4628	.4600	.4573
11.00	.4545	.4518	.4491	.4465	.4438	.4412	.4385	.4359	.4333	.4307	.4282	.4256
12.00	.4231	.4206	.4181	.4156	.4131	.4106	.4082	.4058	.4034	.4009	.3986	.3962
13.00	.3938	.3915	.3892	.3868	.3845	.3822	.3800	.3777	.3755	.3732	.3710	.3688
14.00	.3666	.3644	.3622	.3601	.3579	.3558	.3537	.3516	.3495	.3474	.3453	.3433
15.00	.3412	.3392	.3372	.3352	.3332	.3312	.3292	.3273	.3253	.3234	.3214	.3195
16.00	.3176	.3157	.3139	.3120	.3101	.3083	.3064	.3046	.3028	.3010	.2992	.2974
17.00	.2957	.2939	.2921	.2904	.2887	.2870	.2852	.2835	.2819	.2802	.2785	.2769
18.00	.2752	.2736	.2719	.2703	.2687	.2671	.2655	.2639	.2624	.2608	.2592	.2577
19.00	.2562	.2546	.2531	.2516	.2501	.2486	.2471	.2457	.2442	.2428	.2413	.2399

SR - 91

HALF-LIFE 9.67 HOURS CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
20.00	.2384	.2370	.2356	.2342	.2328	.2314	.2301	.2287	.2273	.2260	.2246	.2233
21.00	.2220	.2206	.2193	.2180	.2167	.2154	.2141	.2129	.2116	.2103	.2091	.2078
22.00	.2066	.2054	.2041	.2029	.2017	.2005	.1993	.1981	.1970	.1958	.1946	.1935
23.00	.1923	.1912	.1900	.1889	.1878	.1867	.1855	.1844	.1833	.1822	.1812	.1801
24.00	.1790	.1779	.1769	.1758	.1748	.1737	.1727	.1717	.1707	.1696	.1686	.1676
25.00	.1666	.1656	.1646	.1637	.1627	.1617	.1608	.1598	.1589	.1579	.1570	.1560
26.00	.1551	.1542	.1533	.1523	.1514	.1505	.1496	.1487	.1479	.1470	.1461	.1452
27.00	.1444	.1435	.1427	.1418	.1410	.1401	.1393	.1385	.1376	.1368	.1360	.1352
28.00	.1344	.1336	.1328	.1320	.1312	.1304	.1297	.1289	.1281	.1274	.1266	.1258
29.00	.1251	.1243	.1236	.1229	.1221	.1214	.1207	.1200	.1193	.1185	.1178	.1171
30.00	.1164	.1157	.1151	.1144	.1137	.1130	.1123	.1117	.1110	.1103	.1097	.1090
31.00	.1084	.1077	.1071	.1065	.1058	.1052	.1046	.1039	.1033	.1027	.1021	.1015
32.00	.1009	.1003	.0997	.0991	.0985	.0979	.0973	.0968	.0962	.0956	.0950	.0945
33.00	.0939	.0933	.0928	.0922	.0917	.0911	.0906	.0901	.0895	.0890	.0885	.0879
34.00	.0874	.0869	.0864	.0859	.0853	.0848	.0843	.0838	.0833	.0828	.0823	.0819
35.00	.0814	.0809	.0804	.0799	.0794	.0790	.0785	.0780	.0776	.0771	.0766	.0762

Y - 88

HALF-LIFE 108.10 DAYS CALCULATION INTERVAL 24.0 HOURS

	HOURS											
DAYS	0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9936	.9873	.9809	.9747	.9684	.9623	.9561	.9500	.9439	.9379	.9319
12.00	.9259	.9200	.9141	.9083	.9025	.8967	.8910	.8853	.8796	.8740	.8684	.8629
24.00	.8574	.8519	.8464	.8410	.8357	.8303	.8250	.8197	.8145	.8093	.8041	.7990
36.00	.7939	.7888	.7838	.7787	.7738	.7688	.7639	.7590	.7542	.7494	.7446	.7398
48.00	.7351	.7304	.7257	.7211	.7165	.7119	.7073	.7028	.6983	.6939	.6894	.6850
60.00	.6806	.6763	.6720	.6677	.6634	.6592	.6549	.6508	.6466	.6425	.6384	.6343
72.00	.6302	.6262	.6222	.6182	.6143	.6103	.6064	.6026	.5987	.5949	.5911	.5873
84.00	.5836	.5798	.5761	.5724	.5688	.5651	.5615	.5579	.5544	.5508	.5473	.5438
96.00	.5403	.5369	.5335	.5300	.5267	.5233	.5199	.5166	.5133	.5100	.5068	.5035
108.00	.5003	.4971	.4939	.4908	.4877	.4845	.4814	.4784	.4753	.4723	.4692	.4662
120.00	.4633	.4603	.4574	.4544	.4515	.4487	.4458	.4429	.4401	.4373	.4345	.4317
132.00	.4290	.4262	.4235	.4208	.4181	.4154	.4128	.4101	.4075	.4049	.4023	.3997
144.00	.3972	.3947	.3921	.3896	.3871	.3847	.3822	.3798	.3773	.3749	.3725	.3701
156.00	.3678	.3654	.3631	.3608	.3585	.3562	.3539	.3516	.3494	.3472	.3449	.3427
168.00	.3405	.3384	.3362	.3340	.3319	.3298	.3277	.3256	.3235	.3214	.3194	.3173
180.00	.3153	.3133	.3113	.3093	.3073	.3054	.3034	.3015	.2996	.2976	.2957	.2938
192.00	.2920	.2901	.2882	.2864	.2846	.2828	.2809	.2791	.2774	.2756	.2738	.2721
204.00	.2703	.2686	.2669	.2652	.2635	.2618	.2601	.2585	.2568	.2552	.2536	.2519
216.00	.2503	.2487	.2471	.2456	.2440	.2424	.2409	.2393	.2378	.2363	.2348	.2333
228.00	.2318	.2303	.2288	.2274	.2259	.2245	.2230	.2216	.2202	.2188	.2174	.2160
240.00	.2146	.2132	.2119	.2105	.2092	.2078	.2065	.2052	.2039	.2026	.2013	.2000
252.00	.1987	.1975	.1962	.1949	.1937	.1925	.1912	.1900	.1888	.1876	.1864	.1852
264.00	.1840	.1828	.1817	.1805	.1793	.1782	.1771	.1759	.1748	.1737	.1726	.1715
276.00	.1704	.1693	.1682	.1671	.1661	.1650	.1639	.1629	.1619	.1608	.1598	.1588
288.00	.1578	.1568	.1557	.1548	.1538	.1528	.1518	.1508	.1499	.1489	.1480	.1470
300.00	.1461	.1451	.1442	.1433	.1424	.1415	.1406	.1397	.1388	.1379	.1370	.1361
312.00	.1353	.1344	.1335	.1327	.1318	.1310	.1302	.1293	.1285	.1277	.1269	.1260
324.00	.1252	.1244	.1236	.1229	.1221	.1213	.1205	.1197	.1190	.1182	.1175	.1167
336.00	.1160	.1152	.1145	.1138	.1130	.1123	.1116	.1109	.1102	.1095	.1088	.1081
348.00	.1074	.1067	.1060	.1053	.1047	.1040	.1033	.1027	.1020	.1014	.1007	.1001

Y - 88

HALF-LIFE 108.10 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
360.00	.0994	.0988	.0982	.0975	.0969	.0963	.0957	.0951	.0945	.0938	.0932	.0927
372.00	.0921	.0915	.0909	.0903	.0897	.0892	.0886	.0880	.0875	.0869	.0863	.0858
384.00	.0852	.0847	.0842	.0836	.0831	.0826	.0820	.0815	.0810	.0805	.0799	.0794

Y - 90

HALF-LIFE 64.00 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9946	.9892	.9839	.9786	.9733	.9680	.9628	.9576	.9524	.9473	.9422
6.00	.9371	.9320	.9270	.9220	.9170	.9121	.9071	.9022	.8974	.8925	.8877	.8829
12.00	.8781	.8734	.8687	.8640	.8593	.8547	.8501	.8455	.8409	.8364	.8318	.8273
18.00	.8229	.8184	.8140	.8096	.8052	.8009	.7966	.7923	.7880	.7837	.7795	.7753
24.00	.7711	.7669	.7628	.7587	.7546	.7505	.7465	.7424	.7384	.7344	.7305	.7265
30.00	.7226	.7187	.7148	.7109	.7071	.7033	.6995	.6957	.6920	.6882	.6845	.6808
36.00	.6771	.6735	.6698	.6662	.6626	.6590	.6555	.6519	.6484	.6449	.6414	.6380
42.00	.6345	.6311	.6277	.6243	.6209	.6176	.6142	.6109	.6076	.6043	.6011	.5978
48.00	.5946	.5914	.5882	.5850	.5819	.5787	.5756	.5725	.5694	.5663	.5633	.5602
54.00	.5572	.5542	.5512	.5482	.5453	.5423	.5394	.5365	.5336	.5307	.5278	.5250
60.00	.5221	.5193	.5165	.5137	.5109	.5082	.5054	.5027	.5000	.4973	.4946	.4919
66.00	.4893	.4866	.4840	.4814	.4788	.4762	.4736	.4711	.4685	.4660	.4635	.4610
72.00	.4585	.4560	.4536	.4511	.4487	.4463	.4438	.4414	.4391	.4367	.4343	.4320
78.00	.4297	.4273	.4250	.4227	.4204	.4182	.4159	.4137	.4114	.4092	.4070	.4048
84.00	.4026	.4004	.3983	.3961	.3940	.3919	.3898	.3876	.3856	.3835	.3814	.3793
90.00	.3773	.3753	.3732	.3712	.3692	.3672	.3652	.3633	.3613	.3593	.3574	.3555
96.00	.3536	.3516	.3497	.3479	.3460	.3441	.3423	.3404	.3386	.3367	.3349	.3331
102.00	.3313	.3295	.3277	.3260	.3242	.3225	.3207	.3190	.3173	.3155	.3138	.3122
108.00	.3105	.3088	.3071	.3055	.3038	.3022	.3005	.2989	.2973	.2957	.2941	.2925
114.00	.2909	.2894	.2878	.2862	.2847	.2832	.2816	.2801	.2786	.2771	.2756	.2741
120.00	.2726	.2712	.2697	.2682	.2668	.2653	.2639	.2625	.2611	.2597	.2583	.2569
126.00	.2555	.2541	.2527	.2514	.2500	.2486	.2473	.2460	.2446	.2433	.2420	.2407
132.00	.2394	.2381	.2368	.2355	.2343	.2330	.2317	.2305	.2293	.2280	.2268	.2256
138.00	.2243	.2231	.2219	.2207	.2195	.2183	.2172	.2160	.2148	.2137	.2125	.2114
144.00	.2102	.2091	.2080	.2068	.2057	.2046	.2035	.2024	.2013	.2002	.1991	.1981
150.00	.1970	.1959	.1949	.1938	.1928	.1917	.1907	.1897	.1886	.1876	.1866	.1856
156.00	.1846	.1836	.1826	.1816	.1806	.1797	.1787	.1777	.1768	.1758	.1749	.1739
162.00	.1730	.1721	.1711	.1702	.1693	.1684	.1675	.1666	.1657	.1648	.1639	.1630
168.00	.1621	.1612	.1604	.1595	.1586	.1578	.1569	.1561	.1552	.1544	.1536	.1527
174.00	.1519	.1511	.1503	.1495	.1487	.1478	.1470	.1463	.1455	.1447	.1439	.1431
180.00	.1423	.1416	.1408	.1401	.1393	.1385	.1378	.1371	.1363	.1356	.1348	.1341
186.00	.1334	.1327	.1320	.1312	.1305	.1298	.1291	.1284	.1277	.1270	.1264	.1257
192.00	.1250	.1243	.1237	.1230	.1223	.1217	.1210	.1204	.1197	.1191	.1184	.1178
198.00	.1171	.1165	.1159	.1152	.1146	.1140	.1134	.1128	.1122	.1116	.1110	.1104
204.00	.1098	.1092	.1086	.1080	.1074	.1068	.1063	.1057	.1051	.1045	.1040	.1034
210.00	.1029	.1023	.1018	.1012	.1007	.1001	.0996	.0990	.0985	.0980	.0974	.0969
216.00	.0964	.0959	.0953	.0948	.0943	.0938	.0933	.0928	.0923	.0918	.0913	.0908
222.00	.0903	.0898	.0894	.0889	.0884	.0879	.0874	.0870	.0865	.0860	.0856	.0851
228.00	.0846	.0842	.0837	.0833	.0828	.0824	.0819	.0815	.0811	.0806	.0802	.0797

Y - 91

HALF-LIFE 58.80 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9961	.9922	.9883	.9844	.9805	.9767	.9729	.9691	.9653	.9615	.9577
4.00	.9539	.9502	.9465	.9428	.9391	.9354	.9317	.9281	.9244	.9208	.9172	.9136
8.00	.9100	.9064	.9029	.8993	.8958	.8923	.8888	.8853	.8818	.8784	.8749	.8715
12.00	.8681	.8647	.8613	.8579	.8546	.8512	.8479	.8445	.8412	.8379	.8346	.8314
16.00	.8281	.8249	.8216	.8184	.8152	.8120	.8088	.8056	.8025	.7993	.7962	.7931
20.00	.7900	.7869	.7838	.7807	.7776	.7746	.7716	.7685	.7655	.7625	.7595	.7565
24.00	.7536	.7506	.7477	.7448	.7418	.7389	.7360	.7331	.7303	.7274	.7245	.7217
28.00	.7189	.7161	.7132	.7104	.7077	.7049	.7021	.6994	.6966	.6939	.6912	.6885
32.00	.6858	.6831	.6804	.6777	.6751	.6724	.6698	.6672	.6645	.6619	.6593	.6568
36.00	.6542	.6516	.6491	.6465	.6440	.6415	.6389	.6364	.6339	.6314	.6290	.6265
40.00	.6240	.6216	.6192	.6167	.6143	.6119	.6095	.6071	.6047	.6024	.6000	.5976
44.00	.5953	.5930	.5906	.5883	.5860	.5837	.5814	.5792	.5769	.5746	.5724	.5701
48.00	.5679	.5657	.5634	.5612	.5590	.5568	.5547	.5525	.5503	.5482	.5460	.5439
52.00	.5417	.5396	.5375	.5354	.5333	.5312	.5291	.5270	.5250	.5229	.5209	.5188
56.00	.5168	.5148	.5127	.5107	.5087	.5067	.5047	.5028	.5008	.4988	.4969	.4949
60.00	.4930	.4910	.4891	.4872	.4853	.4834	.4815	.4796	.4777	.4758	.4740	.4721
64.00	.4703	.4684	.4666	.4648	.4629	.4611	.4593	.4575	.4557	.4539	.4522	.4504
68.00	.4486	.4469	.4451	.4434	.4416	.4399	.4382	.4364	.4347	.4330	.4313	.4296
72.00	.4279	.4263	.4246	.4229	.4213	.4196	.4180	.4163	.4147	.4131	.4115	.4098
76.00	.4082	.4066	.4050	.4035	.4019	.4003	.3987	.3972	.3956	.3941	.3925	.3910
80.00	.3894	.3879	.3864	.3849	.3834	.3819	.3804	.3789	.3774	.3759	.3744	.3730
84.00	.3715	.3700	.3686	.3671	.3657	.3643	.3628	.3614	.3600	.3586	.3572	.3558
88.00	.3544	.3530	.3516	.3502	.3489	.3475	.3461	.3448	.3434	.3421	.3407	.3394
92.00	.3381	.3367	.3354	.3341	.3328	.3315	.3302	.3289	.3276	.3263	.3250	.3238
96.00	.3225	.3212	.3200	.3187	.3175	.3162	.3150	.3137	.3125	.3113	.3101	.3089
100.00	.3076	.3064	.3052	.3040	.3028	.3017	.3005	.2993	.2981	.2970	.2958	.2946
104.00	.2935	.2923	.2912	.2900	.2889	.2878	.2866	.2855	.2844	.2833	.2822	.2811
108.00	.2800	.2789	.2778	.2767	.2756	.2745	.2734	.2724	.2713	.2702	.2692	.2681
112.00	.2671	.2660	.2650	.2639	.2629	.2619	.2608	.2598	.2588	.2578	.2568	.2558
116.00	.2548	.2538	.2528	.2518	.2508	.2498	.2488	.2478	.2469	.2459	.2449	.2440
120.00	.2430	.2421	.2411	.2402	.2392	.2383	.2374	.2364	.2355	.2346	.2337	.2327
124.00	.2318	.2309	.2300	.2291	.2282	.2273	.2264	.2255	.2247	.2238	.2229	.2220
128.00	.2212	.2203	.2194	.2186	.2177	.2169	.2160	.2152	.2143	.2135	.2126	.2118
132.00	.2110	.2101	.2093	.2085	.2077	.2069	.2061	.2052	.2044	.2036	.2028	.2020
136.00	.2013	.2005	.1997	.1989	.1981	.1973	.1966	.1958	.1950	.1943	.1935	.1927
140.00	.1920	.1912	.1905	.1897	.1890	.1882	.1875	.1868	.1860	.1853	.1846	.1839
144.00	.1831	.1824	.1817	.1810	.1803	.1796	.1789	.1782	.1775	.1768	.1761	.1754
148.00	.1747	.1740	.1733	.1727	.1720	.1713	.1706	.1700	.1693	.1686	.1680	.1673
152.00	.1667	.1660	.1654	.1647	.1641	.1634	.1628	.1621	.1615	.1609	.1602	.1596
156.00	.1590	.1584	.1577	.1571	.1565	.1559	.1553	.1547	.1541	.1535	.1529	.1523
160.00	.1517	.1511	.1505	.1499	.1493	.1487	.1481	.1475	.1470	.1464	.1458	.1452
164.00	.1447	.1441	.1435	.1430	.1424	.1419	.1413	.1407	.1402	.1396	.1391	.1386
168.00	.1380	.1375	.1369	.1364	.1359	.1353	.1348	.1343	.1337	.1332	.1327	.1322
172.00	.1317	.1311	.1306	.1301	.1296	.1291	.1286	.1281	.1276	.1271	.1266	.1261
176.00	.1256	.1251	.1246	.1241	.1236	.1231	.1227	.1222	.1217	.1212	.1208	.1203
180.00	.1198	.1193	.1189	.1184	.1179	.1175	.1170	.1166	.1161	.1156	.1152	.1147
184.00	.1143	.1138	.1134	.1129	.1125	.1121	.1116	.1112	.1108	.1103	.1099	.1095
188.00	.1090	.1086	.1082	.1077	.1073	.1069	.1065	.1061	.1057	.1052	.1048	.1044
192.00	.1040	.1036	.1032	.1028	.1024	.1020	.1016	.1012	.1008	.1004	.1000	.0996
196.00	.0992	.0988	.0984	.0980	.0977	.0973	.0969	.0965	.0961	.0958	.0954	.0950
200.00	.0946	.0943	.0939	.0935	.0932	.0928	.0924	.0921	.0917	.0914	.0910	.0906
204.00	.0903	.0899	.0896	.0892	.0889	.0885	.0882	.0878	.0875	.0871	.0868	.0865
208.00	.0861	.0858	.0855	.0851	.0848	.0844	.0841	.0838	.0835	.0831	.0828	.0825
212.00	.0822	.0818	.0815	.0812	.0809	.0806	.0802	.0799	.0796	.0793	.0790	.0787

ZR - 95

HALF-LIFE 65.50 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9965	.9930	.9895	.9860	.9825	.9791	.9756	.9722	.9688	.9653	.9619
4.00	.9586	.9552	.9518	.9485	.9451	.9418	.9385	.9352	.9319	.9286	.9253	.9221
8.00	.9188	.9156	.9124	.9092	.9060	.9028	.8996	.8964	.8933	.8901	.8870	.8839
12.00	.8807	.8776	.8746	.8715	.8684	.8653	.8623	.8593	.8562	.8532	.8502	.8472
16.00	.8442	.8413	.8383	.8354	.6324	.8295	.8266	.8236	.8207	.8179	.8150	.8121
20.00	.8092	.8064	.8036	.8007	.7979	.7951	.7923	.7895	.7867	.7840	.7812	.7785
24.00	.7757	.7730	.7703	.7675	.7648	.7621	.7595	.7568	.7541	.7515	.7488	.7462
28.00	.7436	.7409	.7383	.7357	.7331	.7306	.7280	.7254	.7229	.7203	.7178	.7153
32.00	.7127	.7102	.7077	.7052	.7028	.7003	.6978	.6954	.6929	.6905	.6880	.6856
36.00	.6832	.6808	.6784	.6760	.6736	.6713	.6689	.6665	.6642	.6619	.6595	.6572
40.00	.6549	.6526	.6503	.6480	.6457	.6434	.6412	.6389	.6367	.6344	.6322	.6300
44.00	.6277	.6255	.6233	.6211	.6189	.6168	.6146	.6124	.6103	.6081	.6060	.6039
48.00	.6017	.5996	.5975	.5954	.5933	.5912	.5891	.5870	.5850	.5829	.5809	.5788
52.00	.5768	.5748	.5727	.5707	.5687	.5667	.5647	.5627	.5607	.5588	.5568	.5548
56.00	.5529	.5509	.5490	.5471	.5451	.5432	.5413	.5394	.5375	.5356	.5337	.5318
60.00	.5300	.5281	.5262	.5244	.5225	.5207	.5189	.5170	.5152	.5134	.5116	.5098
64.00	.5080	.5062	.5044	.5027	.5009	.4991	.4974	.4956	.4939	.4921	.4904	.4887
68.00	.4869	.4852	.4835	.4818	.4801	.4784	.4767	.4751	.4734	.4717	.4701	.4684
72.00	.4668	.4651	.4635	.4618	.4602	.4586	.4570	.4554	.4538	.4522	.4506	.4490
76.00	.4474	.4458	.4443	.4427	.4411	.4396	.4380	.4365	.4350	.4334	.4319	.4304
80.00	.4289	.4274	.4259	.4244	.4229	.4214	.4199	.4184	.4169	.4155	.4140	.4126
84.00	.4111	.4097	.4082	.4068	.4053	.4039	.4025	.4011	.3997	.3983	.3969	.3955
88.00	.3941	.3927	.3913	.3899	.3885	.3872	.3858	.3844	.3831	.3817	.3804	.3791
92.00	.3777	.3764	.3751	.3738	.3724	.3711	.3698	.3685	.3672	.3659	.3646	.3634
96.00	.3621	.3608	.3595	.3583	.3570	.3557	.3545	.3532	.3520	.3508	.3495	.3483
100.00	.3471	.3458	.3446	.3434	.3422	.3410	.3398	.3386	.3374	.3362	.3350	.3339
104.00	.3327	.3315	.3303	.3292	.3280	.3269	.3257	.3246	.3234	.3223	.3212	.3200
108.00	.3189	.3178	.3167	.3155	.3144	.3133	.3122	.3111	.3100	.3089	.3078	.3068
112.00	.3057	.3046	.3035	.3025	.3014	.3003	.2993	.2982	.2972	.2961	.2951	.2940
116.00	.2930	.2920	.2909	.2899	.2889	.2879	.2869	.2859	.2849	.2839	.2829	.2819
120.00	.2809	.2799	.2789	.2779	.2769	.2760	.2750	.2740	.2730	.2721	.2711	.2702
124.00	.2692	.2683	.2673	.2664	.2655	.2645	.2636	.2627	.2617	.2608	.2599	.2590
128.00	.2581	.2572	.2562	.2553	.2544	.2536	.2527	.2518	.2509	.2500	.2491	.2482
132.00	.2474	.2465	.2456	.2448	.2439	.2430	.2422	.2413	.2405	.2396	.2388	.2380
136.00	.2371	.2363	.2354	.2346	.2338	.2330	.2322	.2313	.2305	.2297	.2289	.2281
140.00	.2273	.2265	.2257	.2249	.2241	.2233	.2225	.2217	.2210	.2202	.2194	.2186
144.00	.2179	.2171	.2163	.2156	.2148	.2141	.2133	.2126	.2118	.2111	.2103	.2096
148.00	.2088	.2081	.2074	.2066	.2059	.2052	.2045	.2037	.2030	.2023	.2016	.2009
152.00	.2002	.1995	.1988	.1981	.1974	.1967	.1960	.1953	.1946	.1939	.1932	.1926
156.00	.1919	.1912	.1905	.1899	.1892	.1885	.1879	.1872	.1865	.1859	.1852	.1846
160.00	.1839	.1833	.1826	.1820	.1814	.1807	.1801	.1794	.1788	.1782	.1776	.1769
164.00	.1763	.1757	.1751	.1745	.1738	.1732	.1726	.1720	.1714	.1708	.1702	.1696
168.00	.1690	.1684	.1678	.1672	.1666	.1660	.1655	.1649	.1643	.1637	.1631	.1626
172.00	.1620	.1614	.1609	.1603	.1597	.1592	.1586	.1580	.1575	.1569	.1564	.1558
176.00	.1553	.1547	.1542	.1536	.1531	.1526	.1520	.1515	.1510	.1504	.1499	.1494
180.00	.1488	.1483	.1478	.1473	.1468	.1462	.1457	.1452	.1447	.1442	.1437	.1432
184.00	.1427	.1422	.1417	.1412	.1407	.1402	.1397	.1392	.1387	.1382	.1377	.1372
188.00	.1368	.1363	.1358	.1353	.1348	.1344	.1339	.1334	.1330	.1325	.1320	.1316
192.00	.1311	.1306	.1302	.1297	.1293	.1288	.1284	.1279	.1274	.1270	.1266	.1261
196.00	.1257	.1252	.1248	.1243	.1239	.1235	.1230	.1226	.1222	.1217	.1213	.1209
200.00	.1205	.1200	.1196	.1192	.1188	.1183	.1179	.1175	.1171	.1167	.1163	.1159
204.00	.1155	.1151	.1147	.1142	.1138	.1134	.1130	.1126	.1122	.1119	.1115	.1111
208.00	.1107	.1103	.1099	.1095	.1091	.1087	.1084	.1080	.1076	.1072	.1068	.1065
212.00	.1061	.1057	.1053	.1050	.1046	.1042	.1039	.1035	.1031	.1028	.1024	.1021
216.00	.1017	.1013	.1010	.1006	.1003	.0999	.0996	.0992	.0989	.0985	.0982	.0978

ZR - 95

HALF-LIFE 65.50 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
220.00	.0975	.0971	.0968	.0965	.0961	.0958	.0954	.0951	.0948	.0944	.0941	.0938
224.00	.0934	.0931	.0928	.0925	.0921	.0918	.0915	.0912	.0908	.0905	.0902	.0899
228.00	.0896	.0892	.0889	.0886	.0883	.0880	.0877	.0874	.0871	.0868	.0865	.0862
232.00	.0859	.0856	.0852	.0849	.0847	.0844	.0841	.0838	.0835	.0832	.0829	.0826
236.00	.0823	.0820	.0817	.0814	.0811	.0809	.0806	.0803	.0800	.0797	.0794	.0792
240.00	.0789	.0786	.0783	.0781	.0778	.0775	.0772	.0770	.0767	.0764	.0761	.0759
244.00	.0756	.0753	.0751	.0748	.0746	.0743	.0740	.0738	.0735	.0733	.0730	.0727
248.00	.0725	.0722	.0720	.0717	.0715	.0712	.0710	.0707	.0705	.0702	.0700	.0697
252.00	.0695	.0692	.0690	.0687	.0685	.0683	.0680	.0678	.0675	.0673	.0671	.0668
256.00	.0666	.0664	.0661	.0659	.0657	.0654	.0652	.0650	.0647	.0645	.0643	.0641
260.00	.0638	.0636	.0634	.0632	.0629	.0627	.0625	.0623	.0621	.0618	.0616	.0614
264.00	.0612	.0610	.0608	.0605	.0603	.0601	.0599	.0597	.0595	.0593	.0591	.0589
268.00	.0587	.0584	.0582	.0580	.0578	.0576	.0574	.0572	.0570	.0568	.0566	.0564
272.00	.0562	.0560	.0558	.0556	.0554	.0552	.0550	.0549	.0547	.0545	.0543	.0541
276.00	.0539	.0537	.0535	.0533	.0531	.0530	.0528	.0526	.0524	.0522	.0520	.0518
280.00	.0517	.0515	.0513	.0511	.0509	.0508	.0506	.0504	.0502	.0500	.0499	.0497
284.00	.0495	.0493	.0492	.0490	.0488	.0487	.0485	.0483	.0481	.0480	.0478	.0476
288.00	.0475	.0473	.0471	.0470	.0468	.0466	.0465	.0463	.0461	.0460	.0458	.0457
292.00	.0455	.0453	.0452	.0450	.0449	.0447	.0445	.0444	.0442	.0441	.0439	.0438
296.00	.0436	.0435	.0433	.0432	.0430	.0429	.0427	.0425	.0424	.0423	.0421	.0420
300.00	.0418	.0417	.0415	.0414	.0412	.0411	.0409	.0408	.0406	.0405	.0404	.0402
304.00	.0401	.0399	.0398	.0397	.0395	.0394	.0392	.0391	.0390	.0388	.0387	.0385
308.00	.0384	.0383	.0381	.0380	.0379	.0377	.0376	.0375	.0373	.0372	.0371	.0370
312.00	.0368	.0367	.0366	.0364	.0363	.0362	.0360	.0359	.0358	.0357	.0355	.0354
316.00	.0353	.0352	.0350	.0349	.0348	.0347	.0346	.0344	.0343	.0342	.0341	.0340
320.00	.0338	.0337	.0336	.0335	.0334	.0332	.0331	.0330	.0329	.0328	.0327	.0325
324.00	.0324	.0323	.0322	.0321	.0320	.0319	.0318	.0316	.0315	.0314	.0313	.0312
328.00	.0311	.0310	.0309	.0308	.0306	.0305	.0304	.0303	.0302	.0301	.0300	.0299
332.00	.0298	.0297	.0296	.0295	.0294	.0293	.0292	.0291	.0290	.0289	.0288	.0287
336.00	.0286	.0285	.0284	.0283	.0282	.0281	.0280	.0279	.0278	.0277	.0276	.0275
340.00	.0274	.0273	.0272	.0271	.0270	.0269	.0268	.0267	.0266	.0265	.0264	.0263
344.00	.0262	.0262	.0261	.0260	.0259	.0258	.0257	.0256	.0255	.0254	.0253	.0252
348.00	.0252	.0251	.0250	.0249	.0248	.0247	.0246	.0245	.0245	.0244	.0243	.0242
352.00	.0241	.0240	.0239	.0239	.0238	.0237	.0236	.0235	.0234	.0234	.0233	.0232
356.00	.0231	.0230	.0230	.0229	.0228	.0227	.0226	.0225	.0225	.0224	.0223	.0222
360.00	.0222	.0221	.0220	.0219	.0218	.0218	.0217	.0216	.0215	.0215	.0214	.0213
364.00	.0212	.0212	.0211	.0210	.0209	.0209	.0208	.0207	.0206	.0206	.0205	.0204
368.00	.0204	.0203	.0202	.0201	.0201	.0200	.0199	.0199	.0198	.0197	.0197	.0196
372.00	.0195	.0194	.0194	.0193	.0192	.0192	.0191	.0190	.0190	.0189	.0188	.0188
376.00	.0187	.0186	.0186	.0185	.0184	.0184	.0183	.0182	.0182	.0181	.0181	.0180
380.00	.0179	.0179	.0178	.0177	.0177	.0176	.0176	.0175	.0174	.0174	.0173	.0172
384.00	.0172	.0171	.0171	.0170	.0169	.0169	.0168	.0168	.0167	.0166	.0166	.0165
388.00	.0165	.0164	.0164	.0163	.0162	.0162	.0161	.0161	.0160	.0160	.0159	.0158
392.00	.0158	.0157	.0157	.0156	.0156	.0155	.0155	.0154	.0154	.0153	.0152	.0152
396.00	.0151	.0151	.0150	.0150	.0149	.0149	.0148	.0148	.0147	.0147	.0146	.0146
400.00	.0145	.0145	.0144	.0144	.0143	.0143	.0142	.0142	.0141	.0141	.0140	.0140
404.00	.0139	.0139	.0138	.0138	.0137	.0137	.0136	.0136	.0135	.0135	.0134	.0134
408.00	.0133	.0133	.0132	.0132	.0131	.0131	.0131	.0130	.0130	.0129	.0129	.0128
412.00	.0128	.0127	.0127	.0126	.0126	.0126	.0125	.0125	.0124	.0124	.0123	.0123
416.00	.0122	.0122	.0122	.0121	.0121	.0120	.0120	.0120	.0119	.0119	.0118	.0118
420.00	.0117	.0117	.0117	.0116	.0116	.0115	.0115	.0115	.0114	.0114	.0113	.0113
424.00	.0113	.0112	.0112	.0111	.0111	.0111	.0110	.0110	.0109	.0109	.0109	.0108
428.00	.0108	.0108	.0107	.0107	.0106	.0106	.0106	.0105	.0105	.0105	.0104	.0104
432.00	.0103	.0103	.0103	.0102	.0102	.0102	.0101	.0101	.0101	.0100	.0100	.0099
436.00	.0099	.0099	.0098	.0098	.0098	.0097	.0097	.0097	.0096	.0096	.0096	.0095

ZR - 95

HALF-LIFE 65.50 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
440.00	.0095	.0095	.0094	.0094	.0094	.0093	.0093	.0093	.0092	.0092	.0092	.0091
444.00	.0091	.0091	.0090	.0090	.0090	.0089	.0089	.0089	.0089	.0088	.0088	.0088
448.00	.0087	.0087	.0087	.0086	.0086	.0086	.0085	.0085	.0085	.0085	.0084	.0084
452.00	.0084	.0083	.0083	.0083	.0083	.0082	.0082	.0082	.0081	.0081	.0081	.0081
456.00	.0080	.0080	.0080	.0079	.0079	.0079	.0079	.0078	.0078	.0078	.0077	.0077

ZR - 97

HALF-LIFE 17.00 HOURS CALCULATION INTERVAL 30.0 MINUTES

	MINUTES											
HOURS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9798	.9600	.9407	.9217	.9031	.8849	.8670	.8495	.8324	.8156	.7991
6.00	.7830	.7672	.7517	.7365	.7217	.7071	.6928	.6789	.6652	.6517	.6386	.6257
12.00	.6131	.6007	.5886	.5767	.5651	.5537	.5425	.5315	.5208	.5103	.5000	.4899
18.00	.4800	.4703	.4608	.4515	.4424	.4335	.4248	.4162	.4078	.3996	.3915	.3836
24.00	.3759	.3683	.3608	.3536	.3464	.3394	.3326	.3259	.3193	.3128	.3065	.3003
30.00	.2943	.2883	.2825	.2768	.2712	.2658	.2604	.2551	.2500	.2450	.2400	.2352
36.00	.2304	.2258	.2212	.2168	.2124	.2081	.2039	.1998	.1957	.1918	.1879	.1841
42.00	.1804	.1768	.1732	.1697	.1663	.1629	.1596	.1564	.1533	.1502	.1471	.1442
48.00	.1413	.1384	.1356	.1329	.1302	.1276	.1250	.1225	.1200	.1176	.1152	.1129
54.00	.1106	.1084	.1062	.1040	.1019	.0999	.0979	.0959	.0940	.0921	.0902	.0884
60.00	.0866	.0849	.0831	.0815	.0798	.0782	.0766	.0751	.0736	.0721	.0706	.0692

NB - 95

HALF-LIFE 35.00 DAYS CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
0.00	1.0000	.9951	.9901	.9853	.9804	.9755	.9707	.9659	.9612	.9564	.9517	.9470
3.00	.9423	.9377	.9330	.9284	.9238	.9193	.9147	.9102	.9057	.9013	.8968	.8924
6.00	.8880	.8836	.8792	.8749	.8706	.8663	.8620	.8577	.8535	.8493	.8451	.8409
9.00	.8367	.8326	.8285	.8244	.8203	.8163	.8123	.8082	.8042	.8003	.7963	.7924
12.00	.7885	.7846	.7807	.7769	.7730	.7692	.7654	.7616	.7579	.7541	.7504	.7467
15.00	.7430	.7393	.7357	.7320	.7284	.7248	.7213	.7177	.7141	.7106	.7071	.7036
18.00	.7001	.6967	.6932	.6898	.6864	.6830	.6796	.6763	.6730	.6696	.6663	.6630
21.00	.6598	.6565	.6533	.6500	.6468	.6436	.6404	.6373	.6341	.6310	.6279	.6248
24.00	.6217	.6186	.6156	.6125	.6095	.6065	.6035	.6005	.5976	.5946	.5917	.5887
27.00	.5858	.5829	.5801	.5772	.5743	.5715	.5687	.5659	.5631	.5603	.5575	.5548
30.00	.5520	.5493	.5466	.5439	.5412	.5385	.5359	.5332	.5306	.5280	.5254	.5228
33.00	.5202	.5176	.5151	.5125	.5100	.5075	.5050	.5025	.5000	.4975	.4951	.4926
36.00	.4902	.4878	.4854	.4830	.4806	.4782	.4758	.4735	.4712	.4688	.4665	.4642
39.00	.4619	.4596	.4574	.4551	.4529	.4506	.4484	.4462	.4440	.4418	.4396	.4374
42.00	.4353	.4331	.4310	.4289	.4267	.4246	.4225	.4204	.4184	.4163	.4142	.4122
45.00	.4102	.4081	.4061	.4041	.4021	.4001	.3982	.3962	.3942	.3923	.3904	.3884
48.00	.3865	.3846	.3827	.3808	.3789	.3771	.3752	.3733	.3715	.3697	.3678	.3660
51.00	.3642	.3624	.3606	.3588	.3571	.3553	.3536	.3518	.3501	.3483	.3466	.3449
54.00	.3432	.3415	.3398	.3381	.3365	.3348	.3332	.3315	.3299	.3282	.3266	.3250
57.00	.3234	.3218	.3202	.3186	.3171	.3155	.3139	.3124	.3108	.3093	.3078	.3063
60.00	.3048	.3032	.3018	.3003	.2988	.2973	.2958	.2944	.2929	.2915	.2900	.2886
63.00	.2872	.2858	.2843	.2829	.2815	.2802	.2788	.2774	.2760	.2747	.2733	.2720
66.00	.2706	.2693	.2679	.2666	.2653	.2640	.2627	.2614	.2601	.2588	.2575	.2563
69.00	.2550	.2537	.2525	.2512	.2500	.2488	.2475	.2463	.2451	.2439	.2427	.2415
72.00	.2403	.2391	.2379	.2367	.2356	.2344	.2333	.2321	.2310	.2298	.2287	.2276

NB - 95

HALF-LIFE 35.00 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	HOURS 0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
75.00	.2264	.2253	.2242	.2231	.2220	.2209	.2198	.2187	.2176	.2166	.2155	.2144
78.00	.2134	.2123	.2113	.2102	.2092	.2082	.2071	.2061	.2051	.2041	.2031	.2021
81.00	.2011	.2001	.1991	.1981	.1971	.1961	.1952	.1942	.1933	.1923	.1913	.1904
84.00	.1895	.1885	.1876	.1867	.1857	.1848	.1839	.1830	.1821	.1812	.1803	.1794
87.00	.1785	.1777	.1768	.1759	.1750	.1742	.1733	.1725	.1716	.1708	.1699	.1691
90.00	.1682	.1674	.1666	.1658	.1649	.1641	.1633	.1625	.1617	.1609	.1601	.1593
93.00	.1585	.1578	.1570	.1562	.1554	.1547	.1539	.1531	.1524	.1516	.1509	.1501
96.00	.1494	.1487	.1479	.1472	.1465	.1457	.1450	.1443	.1436	.1429	.1422	.1415
99.00	.1408	.1401	.1394	.1387	.1380	.1373	.1367	.1360	.1353	.1346	.1340	.1333
102.00	.1327	.1320	.1313	.1307	.1301	.1294	.1288	.1281	.1275	.1269	.1262	.1256
105.00	.1250	.1244	.1238	.1232	.1225	.1219	.1213	.1207	.1201	.1196	.1190	.1184
108.00	.1178	.1172	.1166	.1161	.1155	.1149	.1143	.1138	.1132	.1127	.1121	.1115
111.00	.1110	.1104	.1099	.1094	.1088	.1083	.1077	.1072	.1067	.1062	.1056	.1051
114.00	.1046	.1041	.1036	.1031	.1025	.1020	.1015	.1010	.1005	.1000	.0995	.0990
117.00	.0986	.0981	.0976	.0971	.0966	.0961	.0957	.0952	.0947	.0943	.0938	.0933
120.00	.0929	.0924	.0920	.0915	.0911	.0906	.0902	.0897	.0893	.0888	.0884	.0880
123.00	.0875	.0871	.0867	.0862	.0858	.0854	.0850	.0845	.0841	.0837	.0833	.0829
126.00	.0825	.0821	.0817	.0813	.0809	.0805	.0801	.0797	.0793	.0789	.0785	.0781

MO - 99

HALF-LIFE 66.70 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9948	.9897	.9845	.9794	.9744	.9693	.9643	.9593	.9543	.9494	.9444
6.00	.9396	.9347	.9298	.9250	.9202	.9155	.9107	.9060	.9013	.8966	.8920	.8874
12.00	.8828	.8782	.8736	.8691	.8646	.8601	.8557	.8512	.8468	.8424	.8381	.8337
18.00	.8294	.8251	.8208	.8166	.8123	.8081	.8039	.7998	.7956	.7915	.7874	.7833
24.00	.7793	.7752	.7712	.7672	.7632	.7593	.7553	.7514	.7475	.7437	.7398	.7360
30.00	.7322	.7284	.7246	.7208	.7171	.7134	.7097	.7060	.7023	.6987	.6951	.6915
36.00	.6879	.6843	.6808	.6773	.6737	.6703	.6668	.6633	.6599	.6565	.6531	.6497
42.00	.6463	.6430	.6396	.6363	.6330	.6297	.6265	.6232	.6200	.6168	.6136	.6104
48.00	.6072	.6041	.6010	.5979	.5948	.5917	.5886	.5856	.5825	.5795	.5765	.5735
54.00	.5705	.5676	.5646	.5617	.5588	.5559	.5530	.5502	.5473	.5445	.5417	.5388
60.00	.5361	.5333	.5305	.5278	.5250	.5223	.5196	.5169	.5142	.5116	.5089	.5063
66.00	.5037	.5010	.4984	.4959	.4933	.4907	.4882	.4857	.4831	.4806	.4781	.4757
72.00	.4732	.4708	.4683	.4659	.4635	.4611	.4587	.4563	.4539	.4516	.4492	.4469
78.00	.4446	.4423	.4400	.4377	.4355	.4332	.4310	.4287	.4265	.4243	.4221	.4199
84.00	.4177	.4156	.4134	.4113	.4091	.4070	.4049	.4028	.4007	.3986	.3966	.3945
90.00	.3925	.3904	.3884	.3864	.3844	.3824	.3804	.3785	.3765	.3745	.3726	.3707
96.00	.3688	.3668	.3649	.3630	.3612	.3593	.3574	.3556	.3537	.3519	.3501	.3483
102.00	.3465	.3447	.3429	.3411	.3393	.3376	.3358	.3341	.3324	.3306	.3289	.3272
108.00	.3255	.3238	.3222	.3205	.3188	.3172	.3155	.3139	.3123	.3106	.3090	.3074
114.00	.3058	.3043	.3027	.3011	.2996	.2980	.2965	.2949	.2934	.2919	.2904	.2889
120.00	.2874	.2859	.2844	.2829	.2814	.2800	.2785	.2771	.2757	.2742	.2728	.2714
126.00	.2700	.2686	.2672	.2658	.2644	.2631	.2617	.2603	.2590	.2576	.2563	.2550
132.00	.2537	.2523	.2510	.2497	.2484	.2472	.2459	.2446	.2433	.2421	.2408	.2396
138.00	.2383	.2371	.2359	.2346	.2334	.2322	.2310	.2298	.2286	.2274	.2263	.2251
144.00	.2239	.2228	.2216	.2205	.2193	.2182	.2171	.2159	.2148	.2137	.2126	.2115
150.00	.2104	.2093	.2082	.2071	.2061	.2050	.2039	.2029	.2018	.2008	.1997	.1987
156.00	.1977	.1966	.1956	.1946	.1936	.1926	.1916	.1906	.1896	.1886	.1877	.1867
162.00	.1857	.1848	.1838	.1828	.1819	.1810	.1800	.1791	.1782	.1772	.1763	.1754
168.00	.1745	.1736	.1727	.1718	.1709	.1700	.1691	.1683	.1674	.1665	.1657	.1648
174.00	.1639	.1631	.1623	.1614	.1606	.1597	.1589	.1581	.1573	.1565	.1556	.1548

MO - 99

HALF-LIFE 66.70 HOURS CALCULATION INTERVAL 30.0 MINUTES

	MINUTES											
HOURS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
180.00	.1540	.1532	.1524	.1517	.1509	.1501	.1493	.1485	.1478	.1470	.1462	.1455
186.00	.1447	.1440	.1432	.1425	.1417	.1410	.1403	.1396	.1388	.1381	.1374	.1367
192.00	.1360	.1353	.1346	.1339	.1332	.1325	.1318	.1311	.1304	.1298	.1291	.1284
198.00	.1278	.1271	.1264	.1258	.1251	.1245	.1238	.1232	.1226	.1219	.1213	.1207
204.00	.1200	.1194	.1188	.1182	.1176	.1170	.1164	.1157	.1151	.1146	.1140	.1134
210.00	.1128	.1122	.1116	.1110	.1105	.1099	.1093	.1088	.1082	.1076	.1071	.1065
216.00	.1060	.1054	.1049	.1043	.1038	.1032	.1027	.1022	.1016	.1011	.1006	.1001
222.00	.0996	.0990	.0985	.0980	.0975	.0970	.0965	.0960	.0955	.0950	.0945	.0940
228.00	.0935	.0931	.0926	.0921	.0916	.0911	.0907	.0902	.0897	.0893	.0888	.0883
234.00	.0879	.0874	.0870	.0865	.0861	.0856	.0852	.0847	.0843	.0839	.0834	.0830
240.00	.0826	.0821	.0817	.0813	.0809	.0805	.0800	.0796	.0792	.0788	.0784	.0780
246.00	.0776	.0772	.0768	.0764	.0760	.0756	.0752	.0748	.0744	.0740	.0737	.0733
252.00	.0729	.0725	.0721	.0718	.0714	.0710	.0707	.0703	.0699	.0696	.0692	.0688
258.00	.0685	.0681	.0678	.0674	.0671	.0667	.0664	.0660	.0657	.0654	.0650	.0647
264.00	.0643	.0640	.0637	.0634	.0630	.0627	.0624	.0620	.0617	.0614	.0611	.0608
270.00	.0605	.0601	.0598	.0595	.0592	.0589	.0586	.0583	.0580	.0577	.0574	.0571
276.00	.0568	.0565	.0562	.0559	.0556	.0553	.0551	.0548	.0545	.0542	.0539	.0536
282.00	.0534	.0531	.0528	.0525	.0523	.0520	.0517	.0515	.0512	.0509	.0507	.0504
288.00	.0501	.0499	.0496	.0494	.0491	.0489	.0486	.0484	.0481	.0479	.0476	.0474
294.00	.0471	.0469	.0466	.0464	.0461	.0459	.0457	.0454	.0452	.0450	.0447	.0445
300.00	.0443	.0440	.0438	.0436	.0434	.0431	.0429	.0427	.0425	.0422	.0420	.0418
306.00	.0416	.0414	.0412	.0409	.0407	.0405	.0403	.0401	.0399	.0397	.0395	.0393
312.00	.0391	.0389	.0387	.0385	.0383	.0381	.0379	.0377	.0375	.0373	.0371	.0369
318.00	.0367	.0365	.0363	.0361	.0360	.0358	.0356	.0354	.0352	.0350	.0349	.0347
324.00	.0345	.0343	.0341	.0340	.0338	.0336	.0334	.0333	.0331	.0329	.0327	.0326
330.00	.0324	.0322	.0321	.0319	.0317	.0316	.0314	.0313	.0311	.0309	.0308	.0306
336.00	.0304	.0303	.0301	.0300	.0298	.0297	.0295	.0294	.0292	.0291	.0289	.0288
342.00	.0286	.0285	.0283	.0282	.0280	.0279	.0277	.0276	.0274	.0273	.0272	.0270
348.00	.0269	.0267	.0266	.0265	.0263	.0262	.0261	.0259	.0258	.0257	.0255	.0254
354.00	.0253	.0251	.0250	.0249	.0247	.0246	.0245	.0244	.0242	.0241	.0240	.0239
360.00	.0237	.0236	.0235	.0234	.0232	.0231	.0230	.0229	.0228	.0226	.0225	.0224
366.00	.0223	.0222	.0221	.0219	.0218	.0217	.0216	.0215	.0214	.0213	.0212	.0211
372.00	.0209	.0208	.0207	.0206	.0205	.0204	.0203	.0202	.0201	.0200	.0199	.0198
378.00	.0197	.0196	.0195	.0194	.0193	.0192	.0191	.0190	.0189	.0188	.0187	.0186
384.00	.0185	.0184	.0183	.0182	.0181	.0180	.0179	.0178	.0177	.0176	.0176	.0175
390.00	.0174	.0173	.0172	.0171	.0170	.0169	.0168	.0168	.0167	.0166	.0165	.0164
396.00	.0163	.0162	.0162	.0161	.0160	.0159	.0158	.0157	.0157	.0156	.0155	.0154
402.00	.0153	.0153	.0152	.0151	.0150	.0149	.0149	.0148	.0147	.0146	.0146	.0145
408.00	.0144	.0143	.0143	.0142	.0141	.0140	.0140	.0139	.0138	.0138	.0137	.0136
414.00	.0135	.0135	.0134	.0133	.0133	.0132	.0131	.0131	.0130	.0129	.0129	.0128
420.00	.0127	.0127	.0126	.0125	.0125	.0124	.0123	.0123	.0122	.0121	.0121	.0120
426.00	.0120	.0119	.0118	.0118	.0117	.0116	.0116	.0115	.0115	.0114	.0113	.0113
432.00	.0112	.0112	.0111	.0111	.0110	.0109	.0109	.0108	.0108	.0107	.0107	.0106
438.00	.0105	.0105	.0104	.0104	.0103	.0103	.0102	.0102	.0101	.0101	.0100	.0100
444.00	.0099	.0099	.0098	.0098	.0097	.0097	.0096	.0096	.0095	.0095	.0094	.0094
450.00	.0093	.0093	.0092	.0092	.0091	.0091	.0090	.0090	.0089	.0089	.0088	.0088
456.00	.0087	.0087	.0087	.0086	.0086	.0085	.0085	.0084	.0084	.0083	.0083	.0083
462.00	.0082	.0082	.0081	.0081	.0081	.0080	.0080	.0079	.0079	.0078	.0078	.0078

TC - 99M

HALF-LIFE 6.05 HOURS CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9905	.9811	.9718	.9625	.9534	.9443	.9354	.9265	.9177	.9089	.9003
1.00	.8917	.8833	.8749	.8666	.8583	.8502	.8421	.8341	.8262	.8183	.8105	.8028
2.00	.7952	.7877	.7802	.7728	.7654	.7581	.7509	.7438	.7367	.7297	.7228	.7159
3.00	.7091	.7024	.6957	.6891	.6826	.6761	.6697	.6633	.6570	.6507	.6446	.6384
4.00	.6324	.6264	.6204	.6145	.6087	.6029	.5972	.5915	.5859	.5803	.5748	.5693
5.00	.5639	.5586	.5533	.5480	.5428	.5376	.5325	.5275	.5224	.5175	.5126	.5077
6.00	.5029	.4981	.4934	.4887	.4840	.4794	.4749	.4704	.4659	.4615	.4571	.4527
7.00	.4484	.4442	.4400	.4358	.4316	.4275	.4235	.4194	.4155	.4115	.4076	.4037
8.00	.3999	.3961	.3923	.3886	.3849	.3813	.3776	.3740	.3705	.3670	.3635	.3600
9.00	.3566	.3532	.3499	.3465	.3432	.3400	.3368	.3336	.3304	.3272	.3241	.3211
10.00	.3180	.3150	.3120	.3090	.3061	.3032	.3003	.2974	.2946	.2918	.2890	.2863
11.00	.2836	.2809	.2782	.2756	.2730	.2704	.2678	.2652	.2627	.2602	.2578	.2553
12.00	.2529	.2505	.2481	.2457	.2434	.2411	.2388	.2365	.2343	.2321	.2299	.2277
13.00	.2255	.2234	.2212	.2191	.2171	.2150	.2130	.2109	.2089	.2069	.2050	.2030
14.00	.2011	.1992	.1973	.1954	.1936	.1917	.1899	.1881	.1863	.1845	.1828	.1810
15.00	.1793	.1776	.1759	.1743	.1726	.1710	.1693	.1677	.1661	.1646	.1630	.1614
16.00	.1599	.1584	.1569	.1554	.1539	.1525	.1510	.1496	.1482	.1467	.1454	.1440
17.00	.1426	.1412	.1399	.1386	.1373	.1360	.1347	.1334	.1321	.1309	.1296	.1284
18.00	.1272	.1260	.1248	.1236	.1224	.1212	.1201	.1189	.1178	.1167	.1156	.1145
19.00	.1134	.1123	.1113	.1102	.1092	.1081	.1071	.1061	.1051	.1041	.1031	.1021
20.00	.1011	.1002	.0992	.0983	.0973	.0964	.0955	.0946	.0937	.0928	.0919	.0910
21.00	.0902	.0893	.0885	.0876	.0868	.0860	.0852	.0843	.0835	.0828	.0820	.0812
22.00	.0804	.0797	.0789	.0781	.0774	.0767	.0759	.0752	.0745	.0738	.0731	.0724

RU - 103

HALF-LIFE 39.50 DAYS CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
0.00	1.0000	.9956	.9913	.9869	.9826	.9783	.9740	.9698	.9655	.9613	.9571	.9529
3.00	.9487	.9446	.9404	.9363	.9322	.9281	.9241	.9200	.9160	.9120	.9080	.9040
6.00	.9001	.8961	.8922	.8883	.8844	.8805	.8767	.8728	.8690	.8652	.8614	.8577
9.00	.8539	.8502	.8464	.8427	.8391	.8354	.8317	.8281	.8245	.8208	.8173	.8137
12.00	.8101	.8066	.8030	.7995	.7960	.7925	.7891	.7856	.7822	.7788	.7753	.7720
15.00	.7686	.7652	.7619	.7585	.7552	.7519	.7486	.7453	.7421	.7388	.7356	.7324
18.00	.7292	.7260	.7228	.7196	.7165	.7133	.7102	.7071	.7040	.7009	.6979	.6948
21.00	.6918	.6887	.6857	.6827	.6797	.6768	.6738	.6708	.6679	.6650	.6621	.6592
24.00	.6563	.6534	.6506	.6477	.6449	.6421	.6392	.6364	.6337	.6309	.6281	.6254
27.00	.6226	.6199	.6172	.6145	.6118	.6091	.6065	.6038	.6012	.5985	.5959	.5933
30.00	.5907	.5881	.5855	.5830	.5804	.5779	.5754	.5728	.5703	.5678	.5653	.5629
33.00	.5604	.5580	.5555	.5531	.5507	.5483	.5459	.5435	.5411	.5387	.5364	.5340
36.00	.5317	.5293	.5270	.5247	.5224	.5201	.5179	.5156	.5133	.5111	.5089	.5066
39.00	.5044	.5022	.5000	.4978	.4956	.4935	.4913	.4892	.4870	.4849	.4828	.4806
42.00	.4785	.4764	.4744	.4723	.4702	.4682	.4661	.4641	.4620	.4600	.4580	.4560
45.00	.4540	.4520	.4500	.4481	.4461	.4441	.4422	.4403	.4383	.4364	.4345	.4326
48.00	.4307	.4288	.4270	.4251	.4232	.4214	.4195	.4177	.4159	.4140	.4122	.4104
51.00	.4086	.4068	.4051	.4033	.4015	.3998	.3980	.3963	.3945	.3928	.3911	.3894
54.00	.3877	.3860	.3843	.3826	.3809	.3793	.3776	.3759	.3743	.3727	.3710	.3694
57.00	.3678	.3662	.3646	.3630	.3614	.3598	.3582	.3567	.3551	.3536	.3520	.3505
60.00	.3489	.3474	.3459	.3444	.3429	.3414	.3399	.3384	.3369	.3354	.3340	.3325
63.00	.3310	.3296	.3281	.3267	.3253	.3239	.3224	.3210	.3196	.3182	.3168	.3154
66.00	.3141	.3127	.3113	.3100	.3086	.3072	.3059	.3046	.3032	.3019	.3006	.2993
69.00	.2980	.2967	.2954	.2941	.2926	.2915	.2902	.2889	.2877	.2864	.2852	.2839
72.00	.2827	.2814	.2802	.2790	.2778	.2765	.2753	.2741	.2729	.2717	.2705	.2694

RU - 103

HALF-LIFE 39.50 DAYS CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
75.00	.2682	.2670	.2658	.2647	.2635	.2624	.2612	.2601	.2589	.2578	.2567	.2555
78.00	.2544	.2533	.2522	.2511	.2500	.2489	.2478	.2467	.2457	.2446	.2435	.2424
81.00	.2414	.2403	.2393	.2382	.2372	.2361	.2351	.2341	.2331	.2320	.2310	.2300
84.00	.2290	.2280	.2270	.2260	.2250	.2240	.2231	.2221	.2211	.2201	.2192	.2182
87.00	.2173	.2163	.2154	.2144	.2135	.2125	.2116	.2107	.2098	.2088	.2079	.2070
90.00	.2061	.2052	.2043	.2034	.2025	.2016	.2008	.1999	.1990	.1981	.1973	.1964
93.00	.1955	.1947	.1938	.1930	.1921	.1913	.1905	.1896	.1888	.1880	.1872	.1863
96.00	.1855	.1847	.1839	.1831	.1823	.1815	.1807	.1799	.1791	.1783	.1776	.1768
99.00	.1760	.1752	.1745	.1737	.1729	.1722	.1714	.1707	.1699	.1692	.1684	.1677
102.00	.1670	.1662	.1655	.1648	.1641	.1634	.1626	.1619	.1612	.1605	.1598	.1591
105.00	.1584	.1577	.1570	.1563	.1557	.1550	.1543	.1536	.1530	.1523	.1516	.1510
108.00	.1503	.1496	.1490	.1483	.1477	.1470	.1464	.1457	.1451	.1445	.1438	.1432
111.00	.1426	.1420	.1413	.1407	.1401	.1395	.1389	.1383	.1377	.1371	.1365	.1359
114.00	.1353	.1347	.1341	.1335	.1329	.1323	.1318	.1312	.1306	.1300	.1295	.1289
117.00	.1283	.1278	.1272	.1267	.1261	.1255	.1250	.1245	.1239	.1234	.1228	.1223
120.00	.1218	.1212	.1207	.1202	.1196	.1191	.1186	.1181	.1176	.1170	.1165	.1160
123.00	.1155	.1150	.1145	.1140	.1135	.1130	.1125	.1120	.1115	.1110	.1106	.1101
126.00	.1096	.1091	.1086	.1082	.1077	.1072	.1067	.1063	.1058	.1053	.1049	.1044
129.00	.1040	.1035	.1031	.1026	.1022	.1017	.1013	.1008	.1004	.0999	.0995	.0991
132.00	.0986	.0982	.0978	.0973	.0969	.0965	.0961	.0957	.0952	.0948	.0944	.0940
135.00	.0936	.0932	.0928	.0924	.0919	.0915	.0911	.0907	.0903	.0900	.0896	.0892
138.00	.0888	.0884	.0880	.0876	.0872	.0869	.0865	.0861	.0857	.0853	.0850	.0846
141.00	.0842	.0839	.0835	.0831	.0828	.0824	.0820	.0817	.0813	.0810	.0806	.0803
144.00	.0799	.0796	.0792	.0789	.0785	.0782	.0778	.0775	.0771	.0768	.0765	.0761
147.00	.0758	.0755	.0751	.0748	.0745	.0742	.0738	.0735	.0732	.0729	.0726	.0722
150.00	.0719	.0716	.0713	.0710	.0707	.0704	.0701	.0697	.0694	.0691	.0688	.0685
153.00	.0682	.0679	.0676	.0673	.0670	.0668	.0665	.0662	.0659	.0656	.0653	.0650
156.00	.0647	.0644	.0642	.0639	.0636	.0633	.0631	.0628	.0625	.0622	.0620	.0617
159.00	.0614	.0611	.0609	.0606	.0603	.0601	.0598	.0596	.0593	.0590	.0588	.0585
162.00	.0583	.0580	.0578	.0575	.0572	.0570	.0567	.0565	.0563	.0560	.0558	.0555
165.00	.0553	.0550	.0548	.0546	.0543	.0541	.0538	.0536	.0534	.0531	.0529	.0527
168.00	.0524	.0522	.0520	.0518	.0515	.0513	.0511	.0509	.0506	.0504	.0502	.0500
171.00	.0498	.0495	.0493	.0491	.0489	.0487	.0485	.0482	.0480	.0478	.0476	.0474
174.00	.0472	.0470	.0468	.0466	.0464	.0462	.0460	.0458	.0456	.0454	.0452	.0450
177.00	.0448	.0446	.0444	.0442	.0440	.0438	.0436	.0434	.0432	.0430	.0429	.0427
180.00	.0425	.0423	.0421	.0419	.0417	.0416	.0414	.0412	.0410	.0408	.0407	.0405
183.00	.0403	.0401	.0400	.0398	.0396	.0394	.0393	.0391	.0389	.0387	.0386	.0384
186.00	.0382	.0381	.0379	.0377	.0376	.0374	.0372	.0371	.0369	.0368	.0366	.0364
189.00	.0363	.0361	.0360	.0358	.0356	.0355	.0353	.0352	.0350	.0349	.0347	.0346
192.00	.0344	.0343	.0341	.0340	.0338	.0337	.0335	.0334	.0332	.0331	.0329	.0328
195.00	.0327	.0325	.0324	.0322	.0321	.0319	.0318	.0317	.0315	.0314	.0313	.0311
198.00	.0310	.0308	.0307	.0306	.0304	.0303	.0302	.0300	.0299	.0298	.0296	.0295
201.00	.0294	.0293	.0291	.0290	.0289	.0288	.0286	.0285	.0284	.0283	.0281	.0280
204.00	.0279	.0278	.0276	.0275	.0274	.0273	.0272	.0270	.0269	.0268	.0267	.0266
207.00	.0265	.0263	.0262	.0261	.0260	.0259	.0258	.0257	.0255	.0254	.0253	.0252
210.00	.0251	.0250	.0249	.0248	.0247	.0246	.0244	.0243	.0242	.0241	.0240	.0239
213.00	.0238	.0237	.0236	.0235	.0234	.0233	.0232	.0231	.0230	.0229	.0228	.0227
216.00	.0226	.0225	.0224	.0223	.0222	.0221	.0220	.0219	.0218	.0217	.0216	.0215
219.00	.0214	.0213	.0212	.0211	.0211	.0210	.0209	.0208	.0207	.0206	.0205	.0204
222.00	.0203	.0202	.0202	.0201	.0200	.0199	.0198	.0197	.0196	.0195	.0195	.0194
225.00	.0193	.0192	.0191	.0190	.0190	.0189	.0188	.0187	.0186	.0185	.0185	.0184
228.00	.0183	.0182	.0181	.0181	.0180	.0179	.0178	.0177	.0177	.0176	.0175	.0174
231.00	.0174	.0173	.0172	.0171	.0171	.0170	.0169	.0168	.0168	.0167	.0166	.0165
234.00	.0165	.0164	.0163	.0163	.0162	.0161	.0160	.0160	.0159	.0158	.0158	.0157
237.00	.0156	.0156	.0155	.0154	.0154	.0153	.0152	.0152	.0151	.0150	.0150	.0149

RU - 103

HALF-LIFE 39.50 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
	HOURS											
240.00	.0148	.0148	.0147	.0146	.0146	.0145	.0144	.0144	.0143	.0142	.0142	.0141
243.00	.0141	.0140	.0139	.0139	.0138	.0138	.0137	.0136	.0136	.0135	.0135	.0134
246.00	.0133	.0133	.0132	.0132	.0131	.0131	.0130	.0129	.0129	.0128	.0128	.0127
249.00	.0127	.0126	.0125	.0125	.0124	.0124	.0123	.0123	.0122	.0122	.0121	.0121
252.00	.0120	.0120	.0119	.0119	.0118	.0117	.0117	.0116	.0116	.0115	.0115	.0114
255.00	.0114	.0113	.0113	.0112	.0112	.0111	.0111	.0110	.0110	.0110	.0109	.0109
258.00	.0108	.0108	.0107	.0107	.0106	.0106	.0105	.0105	.0104	.0104	.0103	.0103
261.00	.0103	.0102	.0102	.0101	.0101	.0100	.0100	.0099	.0099	.0099	.0098	.0098
264.00	.0097	.0097	.0096	.0096	.0096	.0095	.0095	.0094	.0094	.0094	.0093	.0093
267.00	.0092	.0092	.0091	.0091	.0091	.0090	.0090	.0090	.0089	.0089	.0088	.0088
270.00	.0088	.0087	.0087	.0086	.0086	.0086	.0085	.0085	.0085	.0084	.0084	.0083
273.00	.0083	.0083	.0082	.0082	.0082	.0081	.0081	.0081	.0080	.0080	.0080	.0079

RU - 105

HALF-LIFE 4.44 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
	MINUTES											
0.00	1.0000	.9974	.9948	.9922	.9896	.9871	.9845	.9820	.9794	.9769	.9743	.9718
.20	.9693	.9667	.9642	.9617	.9592	.9567	.9542	.9518	.9493	.9468	.9444	.9419
.40	.9395	.9370	.9346	.9322	.9297	.9273	.9249	.9225	.9201	.9177	.9153	.9130
.60	.9106	.9082	.9059	.9035	.9012	.8988	.8965	.8941	.8918	.8895	.8872	.8849
.80	.8826	.8803	.8780	.8757	.8735	.8712	.8689	.8667	.8644	.8622	.8599	.8577
1.00	.8555	.8532	.8510	.8488	.8466	.8444	.8422	.8400	.8378	.8357	.8335	.8313
1.20	.8292	.8270	.8249	.8227	.8206	.8184	.8163	.8142	.8121	.8100	.8079	.8058
1.40	.8037	.8016	.7995	.7974	.7954	.7933	.7912	.7892	.7871	.7851	.7830	.7810
1.60	.7790	.7769	.7749	.7729	.7709	.7689	.7669	.7649	.7629	.7609	.7590	.7570
1.80	.7550	.7531	.7511	.7492	.7472	.7453	.7433	.7414	.7395	.7375	.7356	.7337
2.00	.7318	.7299	.7280	.7261	.7242	.7224	.7205	.7186	.7167	.7149	.7130	.7112
2.20	.7093	.7075	.7056	.7038	.7020	.7001	.6983	.6965	.6947	.6929	.6911	.6893
2.40	.6875	.6857	.6839	.6822	.6804	.6786	.6769	.6751	.6734	.6716	.6699	.6681
2.60	.6664	.6646	.6629	.6612	.6595	.6578	.6561	.6544	.6527	.6510	.6493	.6476
2.80	.6459	.6442	.6425	.6409	.6392	.6375	.6359	.6342	.6326	.6309	.6293	.6277
3.00	.6260	.6244	.6228	.6212	.6196	.6179	.6163	.6147	.6131	.6115	.6100	.6084
3.20	.6068	.6052	.6036	.6021	.6005	.5990	.5974	.5958	.5943	.5927	.5912	.5897
3.40	.5881	.5866	.5851	.5836	.5821	.5805	.5790	.5775	.5760	.5745	.5730	.5715
3.60	.5701	.5686	.5671	.5656	.5642	.5627	.5612	.5598	.5583	.5569	.5554	.5540
3.80	.5525	.5511	.5497	.5482	.5468	.5454	.5440	.5426	.5412	.5397	.5383	.5369
4.00	.5356	.5342	.5328	.5314	.5300	.5286	.5273	.5259	.5245	.5232	.5218	.5204
4.20	.5191	.5177	.5164	.5151	.5137	.5124	.5110	.5097	.5084	.5071	.5058	.5044
4.40	.5031	.5018	.5005	.4992	.4979	.4966	.4953	.4941	.4928	.4915	.4902	.4889
4.60	.4877	.4864	.4851	.4839	.4826	.4814	.4801	.4789	.4776	.4764	.4751	.4739
4.80	.4727	.4714	.4702	.4690	.4678	.4666	.4654	.4641	.4629	.4617	.4605	.4593
5.00	.4581	.4570	.4558	.4546	.4534	.4522	.4510	.4499	.4487	.4475	.4464	.4452
5.20	.4441	.4429	.4418	.4406	.4395	.4383	.4372	.4360	.4349	.4338	.4327	.4315
5.40	.4304	.4293	.4282	.4271	.4260	.4248	.4237	.4226	.4215	.4204	.4194	.4183
5.60	.4172	.4161	.4150	.4139	.4129	.4118	.4107	.4096	.4086	.4075	.4065	.4054
5.80	.4044	.4033	.4023	.4012	.4002	.3991	.3981	.3971	.3960	.3950	.3940	.3929
6.00	.3919	.3909	.3899	.3889	.3879	.3869	.3859	.3849	.3839	.3829	.3819	.3809
6.20	.3799	.3789	.3779	.3769	.3759	.3750	.3740	.3730	.3721	.3711	.3701	.3692
6.40	.3682	.3672	.3663	.3653	.3644	.3634	.3625	.3616	.3606	.3597	.3587	.3578
6.60	.3569	.3560	.3550	.3541	.3532	.3523	.3514	.3504	.3495	.3486	.3477	.3468
6.80	.3459	.3450	.3441	.3432	.3423	.3414	.3406	.3397	.3388	.3379	.3370	.3362

RU - 105

HALF-LIFE 4.44 HOURS CALCULATION INTERVAL 1.0 MINUTES

	MINUTES											
HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
7.00	.3353	.3344	.3335	.3327	.3318	.3309	.3301	.3292	.3284	.3275	.3267	.3258
7.20	.3250	.3241	.3233	.3224	.3216	.3208	.3199	.3191	.3183	.3174	.3166	.3158
7.40	.3150	.3142	.3133	.3125	.3117	.3109	.3101	.3093	.3085	.3077	.3069	.3061
7.60	.3053	.3045	.3037	.3029	.3021	.3014	.3006	.2998	.2990	.2982	.2975	.2967
7.80	.2959	.2951	.2944	.2936	.2928	.2921	.2913	.2906	.2898	.2891	.2883	.2876
8.00	.2868	.2861	.2853	.2846	.2838	.2831	.2824	.2816	.2809	.2802	.2794	.2787
8.20	.2780	.2773	.2766	.2758	.2751	.2744	.2737	.2730	.2723	.2716	.2709	.2702
8.40	.2695	.2688	.2681	.2674	.2667	.2660	.2653	.2646	.2639	.2632	.2625	.2619
8.60	.2612	.2605	.2598	.2591	.2585	.2578	.2571	.2565	.2558	.2551	.2545	.2538
8.80	.2531	.2525	.2518	.2512	.2505	.2499	.2492	.2486	.2479	.2473	.2466	.2460
9.00	.2454	.2447	.2441	.2435	.2428	.2422	.2416	.2409	.2403	.2397	.2391	.2384
9.20	.2378	.2372	.2366	.2360	.2354	.2347	.2341	.2335	.2329	.2323	.2317	.2311
9.40	.2305	.2299	.2293	.2287	.2281	.2275	.2269	.2263	.2258	.2252	.2246	.2240
9.60	.2234	.2228	.2223	.2217	.2211	.2205	.2200	.2194	.2188	.2183	.2177	.2171
9.80	.2166	.2160	.2154	.2149	.2143	.2138	.2132	.2126	.2121	.2115	.2110	.2104
10.00	.2099	.2094	.2088	.2083	.2077	.2072	.2066	.2061	.2056	.2050	.2045	.2040
10.20	.2034	.2029	.2024	.2019	.2013	.2008	.2003	.1998	.1993	.1987	.1982	.1977
10.40	.1972	.1967	.1962	.1957	.1951	.1946	.1941	.1936	.1931	.1926	.1921	.1916
10.60	.1911	.1906	.1901	.1896	.1891	.1887	.1882	.1877	.1872	.1867	.1862	.1857
10.80	.1853	.1848	.1843	.1838	.1833	.1829	.1824	.1819	.1814	.1810	.1805	.1800
11.00	.1796	.1791	.1786	.1782	.1777	.1772	.1768	.1763	.1759	.1754	.1749	.1745
11.20	.1740	.1736	.1731	.1727	.1722	.1718	.1713	.1709	.1705	.1700	.1696	.1691
11.40	.1687	.1683	.1678	.1674	.1669	.1665	.1661	.1656	.1652	.1648	.1644	.1639
11.60	.1635	.1631	.1627	.1622	.1618	.1614	.1610	.1606	.1601	.1597	.1593	.1589
11.80	.1585	.1581	.1577	.1572	.1568	.1564	.1560	.1556	.1552	.1548	.1544	.1540
12.00	.1536	.1532	.1528	.1524	.1520	.1516	.1512	.1508	.1504	.1500	.1497	.1493
12.20	.1489	.1485	.1481	.1477	.1473	.1470	.1466	.1462	.1458	.1454	.1451	.1447
12.40	.1443	.1439	.1436	.1432	.1428	.1424	.1421	.1417	.1413	.1410	.1406	.1402
12.60	.1399	.1395	.1391	.1388	.1384	.1381	.1377	.1373	.1370	.1366	.1363	.1359
12.80	.1356	.1352	.1349	.1345	.1342	.1338	.1335	.1331	.1328	.1324	.1321	.1317
13.00	.1314	.1311	.1307	.1304	.1300	.1297	.1294	.1290	.1287	.1284	.1280	.1277
13.20	.1274	.1270	.1267	.1264	.1260	.1257	.1254	.1251	.1247	.1244	.1241	.1238
13.40	.1234	.1231	.1228	.1225	.1222	.1219	.1215	.1212	.1209	.1206	.1203	.1200
13.60	.1197	.1193	.1190	.1187	.1184	.1181	.1178	.1175	.1172	.1169	.1166	.1163
13.80	.1160	.1157	.1154	.1151	.1148	.1145	.1142	.1139	.1136	.1133	.1130	.1127
14.00	.1124	.1121	.1118	.1115	.1112	.1110	.1107	.1104	.1101	.1098	.1095	.1092
14.20	.1090	.1087	.1084	.1081	.1078	.1075	.1073	.1070	.1067	.1064	.1062	.1059
14.40	.1056	.1053	.1051	.1048	.1045	.1042	.1040	.1037	.1034	.1032	.1029	.1026
14.60	.1024	.1021	.1018	.1016	.1013	.1010	.1008	.1005	.1003	.1000	.0997	.0995
14.80	.0992	.0990	.0987	.0984	.0982	.0979	.0977	.0974	.0972	.0969	.0967	.0964
15.00	.0962	.0959	.0957	.0954	.0952	.0949	.0947	.0944	.0942	.0939	.0937	.0934
15.20	.0932	.0930	.0927	.0925	.0922	.0920	.0918	.0915	.0913	.0910	.0908	.0906
15.40	.0903	.0901	.0899	.0896	.0894	.0892	.0889	.0887	.0885	.0883	.0880	.0878
15.60	.0876	.0873	.0871	.0869	.0867	.0864	.0862	.0860	.0858	.0855	.0853	.0851
15.80	.0849	.0847	.0844	.0842	.0840	.0838	.0836	.0833	.0831	.0829	.0827	.0825
16.00	.0823	.0820	.0818	.0816	.0814	.0812	.0810	.0808	.0806	.0804	.0802	.0799

RU - 106

HALF-LIFE 1.01 YEARS — CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9906	.9814	.9722	.9631	.9541	.9452	.9363	.9275	.9189
50.0	.9103	.9018	.8933	.8850	.8767	.8685	.8603	.8523	.8443	.8364
100.0	.8286	.8208	.8132	.8056	.7980	.7905	.7832	.7758	.7686	.7614
150.0	.7542	.7472	.7402	.7333	.7264	.7196	.7129	.7062	.6996	.6931
200.0	.6866	.6801	.6738	.6675	.6612	.6550	.6489	.6428	.6368	.6309
250.0	.6250	.6191	.6133	.6076	.6019	.5963	.5907	.5852	.5797	.5743
300.0	.5689	.5636	.5583	.5531	.5479	.5428	.5377	.5327	.5277	.5227
350.0	.5178	.5130	.5082	.5034	.4987	.4941	.4894	.4849	.4803	.4758
400.0	.4714	.4670	.4626	.4583	.4540	.4497	.4455	.4414	.4372	.4331
450.0	.4291	.4251	.4211	.4172	.4132	.4094	.4056	.4018	.3980	.3943
500.0	.3906	.3869	.3833	.3797	.3762	.3726	.3692	.3657	.3623	.3589
550.0	.3555	.3522	.3489	.3456	.3424	.3392	.3360	.3329	.3298	.3267
600.0	.3236	.3206	.3176	.3146	.3117	.3088	.3059	.3030	.3002	.2974
650.0	.2946	.2918	.2891	.2864	.2837	.2811	.2784	.2758	.2733	.2707
700.0	.2682	.2657	.2632	.2607	.2583	.2558	.2535	.2511	.2487	.2464
750.0	.2441	.2418	.2396	.2373	.2351	.2329	.2307	.2286	.2264	.2243
800.0	.2222	.2201	.2181	.2160	.2140	.2120	.2100	.2080	.2061	.2243
850.0	.2023	.2004	.1985	.1966	.1948	.1930	.1912	.1894	.1876	.2042
900.0	.1841	.1824	.1807	.1790	.1773	.1757	.1740	.1724	.1708	.1859
950.0	.1676	.1660	.1645	.1629	.1614	.1599	.1584	.1569	.1555	.1540
1000.0	.1526	.1511	.1497	.1483	.1469	.1455	.1442	.1428	.1415	.1402
1050.0	.1389	.1376	.1363	.1350	.1337	.1325	.1313	.1300	.1288	.1276
1100.0	.1264	.1252	.1241	.1229	.1217	.1206	.1195	.1184	.1172	.1162
1150.0	.1151	.1140	.1129	.1119	.1108	.1098	.1088	.1077	.1067	.1057
1200.0	.1047	.1038	.1028	.1018	.1009	.0999	.0990	.0981	.0972	.0962
1250.0	.0953	.0944	.0936	.0927	.0918	.0910	.0901	.0893	.0884	.0876
1300.0	.0868	.0860	.0852	.0844	.0836	.0828	.0820	.0813	.0805	.0797

RH - 102

HALF-LIFE 206.00 DAYS — CALCULATION INTERVAL 48.0 HOURS

DAYS	0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9933	.9866	.9800	.9734	.9669	.9604	.9540	.9476	.9412	.9349	.9286
24.00	.9224	.9162	.9101	.9040	.8979	.8919	.8859	.8800	.8741	.8682	.8624	.8566
48.00	.8509	.8452	.8395	.8339	.8283	.8227	.8172	.8117	.8063	.8009	.7955	.7901
72.00	.7848	.7796	.7744	.7692	.7640	.7589	.7538	.7487	.7437	.7387	.7338	.7288
96.00	.7240	.7191	.7143	.7095	.7047	.7000	.6953	.6906	.6860	.6814	.6768	.6723
120.00	.6678	.6633	.6589	.6544	.6501	.6457	.6414	.6371	.6328	.6285	.6243	.6201
144.00	.6160	.6119	.6078	.6037	.5996	.5956	.5916	.5876	.5837	.5798	.5759	.5720
168.00	.5682	.5644	.5606	.5568	.5531	.5494	.5457	.5421	.5384	.5348	.5312	.5277
192.00	.5241	.5206	.5171	.5136	.5102	.5068	.5034	.5000	.4966	.4933	.4900	.4867
216.00	.4835	.4802	.4770	.4738	.4706	.4675	.4643	.4612	.4581	.4550	.4520	.4490
240.00	.4459	.4430	.4400	.4370	.4341	.4312	.4283	.4254	.4226	.4197	.4169	.4141
264.00	.4114	.4086	.4059	.4031	.4004	.3977	.3951	.3924	.3898	.3872	.3846	.3820
288.00	.3794	.3769	.3744	.3719	.3694	.3669	.3644	.3620	.3596	.3571	.3547	.3524
312.00	.3500	.3477	.3453	.3430	.3407	.3384	.3362	.3339	.3317	.3294	.3272	.3250
336.00	.3228	.3207	.3185	.3164	.3143	.3122	.3101	.3080	.3059	.3039	.3018	.2998
360.00	.2978	.2958	.2938	.2919	.2899	.2879	.2860	.2841	.2822	.2803	.2784	.2766
384.00	.2747	.2729	.2710	.2692	.2674	.2656	.2638	.2621	.2603	.2586	.2568	.2551
408.00	.2534	.2517	.2500	.2483	.2467	.2450	.2434	.2417	.2401	.2385	.2369	.2353
432.00	.2337	.2322	.2306	.2291	.2275	.2260	.2245	.2230	.2215	.2200	.2185	.2171
456.00	.2156	.2142	.2127	.2113	.2099	.2085	.2071	.2057	.2043	.2029	.2016	.2002

RH - 102

HALF-LIFE 206.00 DAYS CALCULATION INTERVAL 48.0 HOURS

DAYS	HOURS 0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
480.00	.1989	.1975	.1962	.1949	.1936	.1923	.1910	.1897	.1884	.1872	.1859	.1847
504.00	.1834	.1822	.1810	.1798	.1786	.1774	.1762	.1750	.1738	.1727	.1715	.1704
528.00	.1692	.1681	.1669	.1658	.1647	.1636	.1625	.1614	.1603	.1593	.1582	.1571
552.00	.1561	.1550	.1540	.1530	.1519	.1509	.1499	.1489	.1479	.1469	.1459	.1449
576.00	.1440	.1430	.1420	.1411	.1402	.1392	.1383	.1373	.1364	.1355	.1346	.1337
600.00	.1328	.1319	.1310	.1302	.1293	.1284	.1275	.1267	.1258	.1250	.1242	.1233
624.00	.1225	.1217	.1209	.1201	.1192	.1184	.1177	.1169	.1161	.1153	.1145	.1138
648.00	.1130	.1122	.1115	.1107	.1100	.1093	.1085	.1078	.1071	.1064	.1056	.1049
672.00	.1042	.1035	.1028	.1021	.1015	.1008	.1001	.0994	.0988	.0981	.0974	.0968
696.00	.0961	.0955	.0949	.0942	.0936	.0930	.0923	.0917	.0911	.0905	.0899	.0893
720.00	.0887	.0881	.0875	.0869	.0863	.0858	.0852	.0846	.0840	.0835	.0829	.0824
744.00	.0818	.0813	.0807	.0802	.0796	.0791	.0786	.0780	.0775	.0770	.0765	.0760

RH - 103M

HALF-LIFE 57.50 MINUTES CALCULATION INTERVAL 30.0 SECONDS

MINUTES	SECONDS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9940	.9880	.9821	.9762	.9703	.9645	.9587	.9529	.9472	.9415	.9358
6.00	.9302	.9246	.9191	.9136	.9081	.9026	.8972	.8918	.8864	.8811	.8758	.8706
12.00	.8653	.8601	.8550	.8498	.8447	.8396	.8346	.8296	.8246	.8196	.8147	.8098
18.00	.8049	.8001	.7953	.7905	.7858	.7810	.7764	.7717	.7670	.7624	.7579	.7533
24.00	.7488	.7443	.7398	.7354	.7309	.7265	.7222	.7178	.7135	.7092	.7050	.7007
30.00	.6965	.6923	.6882	.6841	.6799	.6759	.6718	.6678	.6637	.6598	.6558	.6518
36.00	.6479	.6440	.6402	.6363	.6325	.6287	.6249	.6212	.6174	.6137	.6100	.6064
42.00	.6027	.5991	.5955	.5919	.5884	.5848	.5813	.5778	.5743	.5709	.5675	.5641
48.00	.5607	.5573	.5539	.5506	.5473	.5440	.5408	.5375	.5343	.5311	.5279	.5247
54.00	.5215	.5184	.5153	.5122	.5091	.5061	.5030	.5000	.4970	.4940	.4910	.4881
60.00	.4852	.4822	.4793	.4765	.4736	.4708	.4679	.4651	.4623	.4595	.4568	.4540
66.00	.4513	.4486	.4459	.4432	.4406	.4379	.4353	.4327	.4301	.4275	.4249	.4224
72.00	.4198	.4173	.4148	.4123	.4098	.4074	.4049	.4025	.4001	.3976	.3953	.3929
78.00	.3905	.3882	.3858	.3835	.3812	.3789	.3767	.3744	.3721	.3699	.3677	.3655
84.00	.3633	.3611	.3589	.3568	.3546	.3525	.3504	.3483	.3462	.3441	.3420	.3400
90.00	.3379	.3359	.3339	.3319	.3299	.3279	.3259	.3240	.3220	.3201	.3182	.3162
96.00	.3143	.3125	.3106	.3087	.3069	.3050	.3032	.3014	.2996	.2978	.2960	.2942
102.00	.2924	.2907	.2889	.2872	.2854	.2837	.2820	.2803	.2786	.2770	.2753	.2737
108.00	.2720	.2704	.2688	.2671	.2655	.2639	.2624	.2608	.2592	.2576	.2561	.2546
114.00	.2530	.2515	.2500	.2485	.2470	.2455	.2440	.2426	.2411	.2397	.2382	.2368
120.00	.2354	.2340	.2326	.2312	.2298	.2284	.2270	.2257	.2243	.2229	.2216	.2203
126.00	.2190	.2176	.2163	.2150	.2137	.2125	.2112	.2099	.2086	.2074	.2061	.2049
132.00	.2037	.2025	.2012	.2000	.1988	.1976	.1964	.1953	.1941	.1929	.1918	.1906
138.00	.1895	.1883	.1872	.1861	.1850	.1838	.1827	.1816	.1805	.1795	.1784	.1773
144.00	.1762	.1752	.1741	.1731	.1720	.1710	.1700	.1690	.1679	.1669	.1659	.1649
150.00	.1639	.1630	.1620	.1610	.1600	.1591	.1581	.1572	.1562	.1553	.1544	.1534
156.00	.1525	.1516	.1507	.1498	.1489	.1480	.1471	.1462	.1453	.1445	.1436	.1427
162.00	.1419	.1410	.1402	.1393	.1385	.1377	.1368	.1360	.1352	.1344	.1336	.1328
168.00	.1320	.1312	.1304	.1296	.1288	.1281	.1273	.1265	.1258	.1250	.1242	.1235
174.00	.1228	.1220	.1213	.1206	.1198	.1191	.1184	.1177	.1170	.1163	.1156	.1149
180.00	.1142	.1135	.1128	.1121	.1115	.1108	.1101	.1095	.1088	.1082	.1075	.1069
186.00	.1062	.1056	.1050	.1043	.1037	.1031	.1025	.1018	.1012	.1006	.1000	.0994
192.00	.0988	.0982	.0976	.0970	.0965	.0959	.0953	.0947	.0942	.0936	.0930	.0925
198.00	.0919	.0914	.0908	.0903	.0897	.0892	.0887	.0881	.0876	.0871	.0865	.0860
204.00	.0855	.0850	.0845	.0840	.0835	.0830	.0825	.0820	.0815	.0810	.0805	.0800

RH - 103M

HALF-LIFE 57.50 MINUTES CALCULATION INTERVAL 30.0 SECONDS

MINUTES	SECONDS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
210.00	.0795	.0791	.0786	.0781	.0776	.0772	.0767	.0763	.0758	.0753	.0749	.0744

RH - 106

HALF-LIFE 2.17 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9947	.9894	.9842	.9789	.9737	.9686	.9634	.9583	.9532	.9482	.9431
.20	.9381	.9331	.9282	.9232	.9183	.9135	.9086	.9038	.8990	.8942	.8895	.8848
.40	.8801	.8754	.8707	.8661	.8615	.8569	.8524	.8479	.8434	.8389	.8344	.8300
.60	.8256	.8212	.8168	.8125	.8082	.8039	.7996	.7954	.7912	.7870	.7828	.7786
.80	.7745	.7704	.7663	.7622	.7582	.7542	.7502	.7462	.7422	.7383	.7343	.7304
1.00	.7266	.7227	.7189	.7151	.7113	.7075	.7037	.7000	.6963	.6926	.6889	.6852
1.20	.6816	.6780	.6744	.6708	.6672	.6637	.6602	.6567	.6532	.6497	.6463	.6428
1.40	.6394	.6360	.6326	.6293	.6259	.6226	.6193	.6160	.6128	.6095	.6063	.6031
1.60	.5998	.5967	.5935	.5903	.5872	.5841	.5810	.5779	.5748	.5718	.5688	.5657
1.80	.5627	.5597	.5568	.5538	.5509	.5479	.5450	.5421	.5393	.5364	.5336	.5307
2.00	.5279	.5251	.5223	.5195	.5168	.5140	.5113	.5086	.5059	.5032	.5005	.4979
2.20	.4952	.4926	.4900	.4874	.4848	.4822	.4797	.4771	.4746	.4721	.4696	.4671
2.40	.4646	.4621	.4597	.4572	.4548	.4524	.4500	.4476	.4452	.4428	.4405	.4382
2.60	.4358	.4335	.4312	.4289	.4266	.4244	.4221	.4199	.4177	.4154	.4132	.4110
2.80	.4089	.4067	.4045	.4024	.4002	.3981	.3960	.3939	.3918	.3897	.3877	.3856
3.00	.3836	.3815	.3795	.3775	.3755	.3735	.3715	.3695	.3676	.3656	.3637	.3617
3.20	.3598	.3579	.3560	.3541	.3522	.3504	.3485	.3467	.3448	.3430	.3412	.3394
3.40	.3376	.3358	.3340	.3322	.3304	.3287	.3269	.3252	.3235	.3218	.3201	.3184
3.60	.3167	.3150	.3133	.3116	.3100	.3083	.3067	.3051	.3035	.3018	.3002	.2987
3.80	.2971	.2955	.2939	.2924	.2908	.2893	.2877	.2862	.2847	.2832	.2817	.2802
4.00	.2787	.2772	.2757	.2743	.2728	.2714	.2699	.2685	.2671	.2656	.2642	.2628
4.20	.2614	.2600	.2587	.2573	.2559	.2546	.2532	.2519	.2505	.2492	.2479	.2466
4.40	.2453	.2440	.2427	.2414	.2401	.2388	.2375	.2363	.2350	.2338	.2325	.2313
4.60	.2301	.2289	.2276	.2264	.2252	.2240	.2228	.2217	.2205	.2193	.2181	.2170
4.80	.2158	.2147	.2136	.2124	.2113	.2102	.2091	.2079	.2068	.2057	.2046	.2036
5.00	.2025	.2014	.2003	.1993	.1982	.1972	.1961	.1951	.1940	.1930	.1920	.1910
5.20	.1899	.1889	.1879	.1869	.1859	.1850	.1840	.1830	.1820	.1811	.1801	.1791
5.40	.1782	.1772	.1763	.1754	.1744	.1735	.1726	.1717	.1708	.1699	.1690	.1681
5.60	.1672	.1663	.1654	.1645	.1636	.1628	.1619	.1611	.1602	.1593	.1585	.1577
5.80	.1568	.1560	.1552	.1543	.1535	.1527	.1519	.1511	.1503	.1495	.1487	.1479
6.00	.1471	.1463	.1456	.1448	.1440	.1433	.1425	.1417	.1410	.1402	.1395	.1387
6.20	.1380	.1373	.1365	.1358	.1351	.1344	.1337	.1330	.1323	.1316	.1309	.1302
6.40	.1295	.1288	.1281	.1274	.1267	.1261	.1254	.1247	.1241	.1234	.1228	.1221
6.60	.1215	.1208	.1202	.1195	.1189	.1183	.1176	.1170	.1164	.1158	.1152	.1145
6.80	.1139	.1133	.1127	.1121	.1115	.1109	.1104	.1098	.1092	.1086	.1080	.1075
7.00	.1069	.1063	.1058	.1052	.1046	.1041	.1035	.1030	.1024	.1019	.1013	.1008
7.20	.1003	.0997	.0992	.0987	.0982	.0976	.0971	.0966	.0961	.0956	.0951	.0946
7.40	.0941	.0936	.0931	.0926	.0921	.0916	.0911	.0906	.0901	.0897	.0892	.0887
7.60	.0882	.0878	.0873	.0868	.0864	.0859	.0855	.0850	.0846	.0841	.0837	.0832
7.80	.0828	.0823	.0819	.0815	.0810	.0806	.0802	.0798	.0793	.0789	.0785	.0781

AG - 110M

HALF-LIFE 255.00 DAYS CALCULATION INTERVAL 48.0 HOURS

DAYS	HOURS 0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9946	.9892	.9838	.9785	.9732	.9679	.9627	.9574	.9522	.9471	.9420
24.00	.9368	.9318	.9267	.9217	.9167	.9117	.9068	.9019	.8970	.8921	.8873	.8825
48.00	.8777	.8729	.8682	.8635	.8588	.8541	.8495	.8449	.8403	.8358	.8312	.8267
72.00	.8222	.8178	.8134	.8089	.8046	.8002	.7959	.7915	.7873	.7830	.7787	.7745
96.00	.7703	.7661	.7620	.7579	.7537	.7497	.7456	.7416	.7375	.7335	.7296	.7256
120.00	.7217	.7178	.7139	.7100	.7061	.7023	.6985	.6947	.6910	.6872	.6835	.6798
144.00	.6761	.6724	.6688	.6652	.6615	.6580	.6544	.6508	.6473	.6438	.6403	.6368
168.00	.6334	.6300	.6265	.6231	.6198	.6164	.6131	.6097	.6064	.6031	.5999	.5966
192.00	.5934	.5902	.5870	.5838	.5806	.5775	.5743	.5712	.5681	.5651	.5620	.5589
216.00	.5559	.5529	.5499	.5469	.5440	.5410	.5381	.5352	.5323	.5294	.5265	.5236
240.00	.5208	.5180	.5152	.5124	.5096	.5068	.5041	.5014	.4986	.4959	.4933	.4906
264.00	.4879	.4853	.4826	.4800	.4774	.4748	.4723	.4697	.4672	.4646	.4621	.4596
288.00	.4571	.4546	.4522	.4497	.4473	.4448	.4424	.4400	.4376	.4353	.4329	.4306
312.00	.4282	.4259	.4236	.4213	.4190	.4168	.4145	.4122	.4100	.4078	.4056	.4034
336.00	.4012	.3990	.3969	.3947	.3926	.3904	.3883	.3862	.3841	.3820	.3800	.3779
360.00	.3759	.3738	.3718	.3698	.3678	.3658	.3638	.3618	.3599	.3579	.3560	.3540
384.00	.3521	.3502	.3483	.3464	.3445	.3427	.3408	.3390	.3371	.3353	.3335	.3317
408.00	.3299	.3281	.3263	.3245	.3228	.3210	.3193	.3176	.3158	.3141	.3124	.3107
432.00	.3090	.3074	.3057	.3040	.3024	.3008	.2991	.2975	.2959	.2943	.2927	.2911
456.00	.2895	.2880	.2864	.2848	.2833	.2818	.2802	.2787	.2772	.2757	.2742	.2727
480.00	.2712	.2698	.2683	.2669	.2654	.2640	.2625	.2611	.2597	.2583	.2569	.2555
504.00	.2541	.2527	.2514	.2500	.2486	.2473	.2460	.2446	.2433	.2420	.2407	.2394
528.00	.2381	.2368	.2355	.2342	.2329	.2317	.2304	.2292	.2279	.2267	.2255	.2242
552.00	.2230	.2218	.2206	.2194	.2182	.2170	.2159	.2147	.2135	.2124	.2112	.2101
576.00	.2089	.2078	.2067	.2056	.2044	.2033	.2022	.2011	.2000	.1990	.1979	.1968
600.00	.1957	.1947	.1936	.1926	.1915	.1905	.1895	.1884	.1874	.1864	.1854	.1844
624.00	.1834	.1824	.1814	.1804	.1794	.1785	.1775	.1765	.1756	.1746	.1737	.1727
648.00	.1718	.1709	.1699	.1690	.1681	.1672	.1663	.1654	.1645	.1636	.1627	.1618
672.00	.1610	.1601	.1592	.1583	.1575	.1566	.1558	.1549	.1541	.1533	.1524	.1516
696.00	.1508	.1500	.1492	.1483	.1475	.1467	.1459	.1452	.1444	.1436	.1428	.1420
720.00	.1413	.1405	.1397	.1390	.1382	.1375	.1367	.1360	.1353	.1345	.1338	.1331
744.00	.1323	.1316	.1309	.1302	.1295	.1288	.1281	.1274	.1267	.1260	.1253	.1247
768.00	.1240	.1233	.1226	.1220	.1213	.1207	.1200	.1194	.1187	.1181	.1174	.1168
792.00	.1162	.1155	.1149	.1143	.1137	.1130	.1124	.1118	.1112	.1106	.1100	.1094
816.00	.1088	.1082	.1076	.1071	.1065	.1059	.1053	.1048	.1042	.1036	.1031	.1025
840.00	.1019	.1014	.1008	.1003	.0998	.0992	.0987	.0981	.0976	.0971	.0966	.0960
864.00	.0955	.0950	.0945	.0940	.0935	.0929	.0924	.0919	.0914	.0909	.0905	.0900
888.00	.0895	.0890	.0885	.0880	.0876	.0871	.0866	.0861	.0857	.0852	.0847	.0843
912.00	.0838	.0834	.0829	.0825	.0820	.0816	.0811	.0807	.0803	.0798	.0794	.0790

AG - 111

HALF-LIFE 7.50 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9962	.9923	.9885	.9847	.9809	.9772	.9734	.9697	.9659	.9622	.9585
.50	.9548	.9512	.9475	.9439	.9402	.9366	.9330	.9294	.9259	.9223	.9188	.9152
1.00	.9117	.9082	.9047	.9013	.8978	.8943	.8909	.8875	.8841	.8807	.8773	.8739
1.50	.8706	.8672	.8639	.8606	.8572	.8539	.8507	.8474	.8441	.8409	.8377	.8344
2.00	.8312	.8280	.8249	.8217	.8185	.8154	.8123	.8091	.8060	.8029	.7998	.7968
2.50	.7937	.7907	.7876	.7846	.7816	.7786	.7756	.7726	.7696	.7667	.7637	.7608
3.00	.7579	.7549	.7520	.7492	.7463	.7434	.7405	.7377	.7349	.7320	.7292	.7264
3.50	.7236	.7209	.7181	.7153	.7126	.7098	.7071	.7044	.7017	.6990	.6963	.6936
4.00	.6910	.6883	.6857	.6830	.6804	.6778	.6752	.6726	.6700	.6674	.6649	.6623
4.50	.6598	.6572	.6547	.6522	.6497	.6472	.6447	.6422	.6397	.6373	.6348	.6324

HALF-LIFE 7.50 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
5.00	.6300	.6275	.6251	.6227	.6203	.6179	.6156	.6132	.6108	.6085	.6062	.6038
5.50	.6015	.5992	.5969	.5946	.5923	.5900	.5878	.5855	.5833	.5810	.5788	.5766
6.00	.5743	.5721	.5699	.5678	.5656	.5634	.5612	.5591	.5569	.5548	.5527	.5505
6.50	.5484	.5463	.5442	.5421	.5400	.5380	.5359	.5338	.5318	.5297	.5277	.5257
7.00	.5236	.5216	.5196	.5176	.5156	.5137	.5117	.5097	.5078	.5058	.5039	.5019
7.50	.5000	.4981	.4962	.4943	.4924	.4905	.4886	.4867	.4848	.4830	.4811	.4793
8.00	.4774	.4756	.4738	.4719	.4701	.4683	.4665	.4647	.4629	.4612	.4594	.4576
8.50	.4559	.4541	.4524	.4506	.4489	.4472	.4454	.4437	.4420	.4403	.4386	.4370
9.00	.4353	.4336	.4319	.4303	.4286	.4270	.4253	.4237	.4221	.4204	.4188	.4172
9.50	.4156	.4140	.4124	.4108	.4093	.4077	.4061	.4046	.4030	.4015	.3999	.3984
10.00	.3969	.3953	.3938	.3923	.3908	.3893	.3878	.3863	.3848	.3833	.3819	.3804
10.50	.3789	.3775	.3760	.3746	.3731	.3717	.3703	.3689	.3674	.366[illegible]	.3646	.3632
11.00	.3618	.3604	.3590	.3577	.3563	.3549	.3536	.3522	.3508	.3495	.3481	.3468
11.50	.3455	.3442	.3428	.3415	.3402	.3389	.3376	.3363	.3350	.3337	.3324	.3311
12.00	.3299	.3286	.3273	.3261	.3248	.3236	.3223	.3211	.3199	.3186	.3174	.3162
12.50	.3150	.3138	.3126	.3114	.3102	.3090	.3078	.3066	.3054	.3043	.3031	.3019
13.00	.3008	.2996	.2984	.2973	.2962	.2950	.2939	.2928	.2916	.2905	.2894	.2883
13.50	.2872	.2861	.2850	.2839	.2828	.2817	.2806	.2795	.2785	.2774	.2763	.2753
14.00	.2742	.2732	.2721	.2711	.2700	.2690	.2679	.2669	.2659	.2649	.2638	.2628
14.50	.2618	.2608	.2598	.2588	.2578	.2568	.2558	.2549	.2539	.2529	.2519	.2510
15.00	.2500	.2490	.2481	.2471	.2462	.2452	.2443	.2434	.2424	.2415	.2406	.2396
15.50	.2387	.2378	.2369	.2360	.2351	.2342	.2333	.2324	.2315	.2306	.2297	.2288
16.00	.2279	.2271	.2262	.2253	.2244	.2236	.2227	.2219	.2210	.2202	.2193	.2185
16.50	.2176	.2168	.2160	.2151	.2143	.2135	.2127	.2118	.2110	.2102	.2094	.2086
17.00	.2078	.2070	.2062	.2054	.2046	.2038	.2031	.2023	.2015	.2007	.2000	.1992
17.50	.1984	.1977	.1969	.1961	.1954	.1946	.1939	.1931	.1924	.1917	.1909	.1902
18.00	.1895	.1887	.1880	.1873	.1866	.1859	.1851	.1844	.1837	.1830	.1823	.1816
18.50	.1809	.1802	.1795	.1788	.1781	.1775	.1768	.1761	.1754	.1747	.1741	.1734
19.00	.1727	.1721	.1714	.1708	.1701	.1694	.1688	.1681	.1675	.1669	.1662	.1656
19.50	.1649	.1643	.1637	.1630	.1624	.1618	.1612	.1606	.1599	.1593	.1587	.1581
20.00	.1575	.1569	.1563	.1557	.1551	.1545	.1539	.1533	.1527	.1521	.1515	.1510
20.50	.1504	.1498	.1492	.1487	.1481	.1475	.1469	.1464	.1458	.1453	.1447	.1441
21.00	.1436	.1430	.1425	.1419	.1414	.1408	.1403	.1398	.1392	.1387	.1382	.1376
21.50	.1371	.1366	.1361	.1355	.1350	.1345	.1340	.1335	.1329	.1324	.1319	.1314
22.00	.1309	.1304	.1299	.1294	.1289	.1284	.1279	.1274	.1269	.1265	.1260	.1255
22.50	.1250	.1245	.1240	.1236	.1231	.1226	.1221	.1217	.1212	.1207	.1203	.1198
23.00	.1194	.1189	.1184	.1180	.1175	.1171	.1166	.1162	.1157	.1153	.1148	.1144
23.50	.1140	.1135	.1131	.1127	.1122	.1118	.1114	.1109	.1105	.1101	.1097	.1092
24.00	.1088	.1084	.1080	.1076	.1072	.1067	.1063	.1059	.1055	.1051	.1047	.1043
24.50	.1039	.1035	.1031	.1027	.1023	.1019	.1015	.1011	.1008	.1004	.1000	.0996
25.00	.0992	.0988	.0985	.0981	.0977	.0973	.0969	.0966	.0962	.0958	.0955	.0951
25.50	.0947	.0944	.0940	.0936	.0933	.0929	.0926	.0922	.0919	.0915	.0912	.0908
26.00	.0905	.0901	.0898	.0894	.0891	.0887	.0884	.0880	.0877	.0874	.0870	.0867
26.50	.0864	.0860	.0857	.0854	.0850	.0847	.0844	.0841	.0837	.0834	.0831	.0828
27.00	.0825	.0822	.0818	.0815	.0812	.0809	.0806	.0803	.0800	.0797	.0794	.0790

HALF-LIFE 3.14 HOURS CALCULATION INTERVAL 1.0 MINUTES

	MINUTES											
HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9963	.9927	.9890	.9854	.9818	.9782	.9746	.9710	.9674	.9639	.9603
.20	.9568	.9533	.9498	.9463	.9428	.9394	.9359	.9325	.9291	.9256	.9222	.9189
.40	.9155	.9121	.9088	.9054	.9021	.8988	.8955	.8922	.8889	.8857	.8824	.8792
.60	.8759	.8727	.8695	.8663	.8632	.8600	.8568	.8537	.8505	.8474	.8443	.8412
.80	.8381	.8350	.8320	.8289	.8259	.8228	.8198	.8168	.8138	.8108	.8078	.8049
1.00	.8019	.7990	.7960	.7931	.7902	.7873	.7844	.7815	.7787	.7758	.7730	.7701
1.20	.7673	.7645	.7617	.7589	.7561	.7533	.7505	.7478	.7450	.7423	.7396	.7369
1.40	.7341	.7315	.7288	.7261	.7234	.7208	.7181	.7155	.7129	.7102	.7076	.7050
1.60	.7024	.6999	.6973	.6947	.6922	.6896	.6871	.6846	.6821	.6796	.6771	.6746
1.80	.6721	.6696	.6672	.6647	.6623	.6599	.6574	.6550	.6526	.6502	.6478	.6454
2.00	.6431	.6407	.6384	.6360	.6337	.6314	.6290	.6267	.6244	.6221	.6198	.6176
2.20	.6153	.6130	.6108	.6085	.6063	.6041	.6019	.5997	.5975	.5953	.5931	.5909
2.40	.5887	.5866	.5844	.5823	.5801	.5780	.5759	.5738	.5717	.5696	.5675	.5654
2.60	.5633	.5612	.5592	.5571	.5551	.5530	.5510	.5490	.5470	.5450	.5430	.5410
2.80	.5390	.5370	.5350	.5331	.5311	.5291	.5272	.5253	.5233	.5214	.5195	.5176
3.00	.5157	.5138	.5119	.5100	.5082	.5063	.5044	.5026	.5007	.4989	.4971	.4952
3.20	.4934	.4916	.4898	.4880	.4862	.4844	.4826	.4809	.4791	.4774	.4756	.4739
3.40	.4721	.4704	.4686	.4669	.4652	.4635	.4618	.4601	.4584	.4567	.4551	.4534
3.60	.4517	.4501	.4484	.4468	.4451	.4435	.4419	.4402	.4386	.4370	.4354	.4338
3.80	.4322	.4306	.4290	.4275	.4259	.4243	.4228	.4212	.4197	.4181	.4166	.4151
4.00	.4135	.4120	.4105	.4090	.4075	.4060	.4045	.4030	.4016	.4001	.3986	.3971
4.20	.3957	.3942	.3928	.3913	.3899	.3885	.3870	.3856	.3842	.3828	.3814	.3800
4.40	.3786	.3772	.3758	.3744	.3731	.3717	.3703	.3690	.3676	.3663	.3649	.3636
4.60	.3622	.3609	.3596	.3583	.3570	.3556	.3543	.3530	.3517	.3504	.3492	.3479
4.80	.3466	.3453	.3441	.3428	.3415	.3403	.3390	.3378	.3365	.3353	.3341	.3329
5.00	.3316	.3304	.3292	.3280	.3268	.3256	.3244	.3232	.3220	.3208	.3196	.3185
5.20	.3173	.3161	.3150	.3138	.3127	.3115	.3104	.3092	.3081	.3070	.3058	.3047
5.40	.3036	.3025	.3014	.3003	.2992	.2981	.2970	.2959	.2948	.2937	.2926	.2916
5.60	.2905	.2894	.2884	.2873	.2862	.2852	.2841	.2831	.2821	.2810	.2800	.2790
5.80	.2779	.2769	.2759	.2749	.2739	.2729	.2719	.2709	.2699	.2689	.2679	.2669
6.00	.2659	.2650	.2640	.2630	.2621	.2611	.2601	.2592	.2582	.2573	.2563	.2554
6.20	.2545	.2535	.2526	.2517	.2507	.2498	.2489	.2480	.2471	.2462	.2453	.2444
6.40	.2435	.2426	.2417	.2408	.2399	.2390	.2381	.2373	.2364	.2355	.2347	.2338
6.60	.2329	.2321	.2312	.2304	.2295	.2287	.2279	.2270	.2262	.2254	.2245	.2237
6.80	.2229	.2221	.2213	.2204	.2196	.2188	.2180	.2172	.2164	.2156	.2148	.2140
7.00	.2133	.2125	.2117	.2109	.2101	.2094	.2086	.2078	.2071	.2063	.2056	.2048
7.20	.2041	.2033	.2026	.2018	.2011	.2003	.1996	.1989	.1981	.1974	.1967	.1960
7.40	.1952	.1945	.1938	.1931	.1924	.1917	.1910	.1903	.1896	.1889	.1882	.1875
7.60	.1868	.1861	.1854	.1848	.1841	.1834	.1827	.1821	.1814	.1807	.1801	.1794
7.80	.1787	.1781	.1774	.1768	.1761	.1755	.1748	.1742	.1736	.1729	.1723	.1716
8.00	.1710	.1704	.1698	.1691	.1685	.1679	.1673	.1667	.1661	.1654	.1648	.1642
8.20	.1636	.1630	.1624	.1618	.1612	.1607	.1601	.1595	.1589	.1583	.1577	.1571
8.40	.1566	.1560	.1554	.1548	.1543	.1537	.1531	.1526	.1520	.1515	.1509	.1504
8.60	.1498	.1493	.1487	.1482	.1476	.1471	.1465	.1460	.1455	.1449	.1444	.1439
8.80	.1433	.1428	.1423	.1418	.1412	.1407	.1402	.1397	.1392	.1387	.1382	.1376
9.00	.1371	.1366	.1361	.1356	.1351	.1346	.1341	.1337	.1332	.1327	.1322	.1317
9.20	.1312	.1307	.1303	.1298	.1293	.1288	.1284	.1279	.1274	.1269	.1265	.1260
9.40	.1256	.1251	.1246	.1242	.1237	.1233	.1228	.1224	.1219	.1215	.1210	.1206
9.60	.1201	.1197	.1192	.1188	.1184	.1179	.1175	.1171	.1166	.1162	.1158	.1154
9.80	.1149	.1145	.1141	.1137	.1133	.1128	.1124	.1120	.1116	.1112	.1108	.1104
10.00	.1100	.1096	.1092	.1088	.1084	.1080	.1076	.1072	.1068	.1064	.1060	.1056
10.20	.1052	.1048	.1045	.1041	.1037	.1033	.1029	.1026	.1022	.1018	.1014	.1011
10.40	.1007	.1003	.0999	.0996	.0992	.0988	.0985	.0981	.0978	.0974	.0970	.0967
10.60	.0963	.0960	.0956	.0953	.0949	.0946	.0942	.0939	.0935	.0932	.0929	.0925
10.80	.0922	.0918	.0915	.0912	.0908	.0905	.0902	.0898	.0895	.0892	.0888	.0885

AG - 112

HALF-LIFE 3.14 HOURS CALCULATION INTERVAL 1.0 MINUTES

	MINUTES											
HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
11.00	.0882	.0879	.0875	.0872	.0869	.0866	.0863	.0860	.0856	.0853	.0850	.0847
11.20	.0844	.0841	.0838	.0835	.0832	.0828	.0825	.0822	.0819	.0816	.0813	.0810
11.40	.0807	.0804	.0801	.0799	.0796	.0793	.0790	.0787	.0784	.0781	.0778	.0775

CD - 109

HALF-LIFE 1.24 YEARS CALCULATION INTERVAL 5.0 DAYS

	DAYS									
DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9924	.9848	.9773	.9698	.9624	.9551	.9478	.9406	.9334
50.0	.9263	.9192	.9122	.9052	.8983	.8915	.8847	.8779	.8712	.8646
100.0	.8580	.8515	.8450	.8385	.8321	.8258	.8195	.8132	.8070	.8009
150.0	.7948	.7887	.7827	.7767	.7708	.7649	.7591	.7533	.7475	.7418
200.0	.7362	.7306	.7250	.7195	.7140	.7085	.7031	.6977	.6924	.6871
250.0	.6819	.6767	.6715	.6664	.6613	.6563	.6513	.6463	.6414	.6365
300.0	.6316	.6268	.6220	.6173	.6126	.6079	.6033	.5987	.5941	.5896
350.0	.5851	.5806	.5762	.5718	.5674	.5631	.5588	.5545	.5503	.5461
400.0	.5419	.5378	.5337	.5296	.5256	.5216	.5176	.5137	.5097	.5059
450.0	.5020	.4982	.4944	.4906	.4869	.4831	.4795	.4758	.4722	.4686
500.0	.4650	.4614	.4579	.4544	.4510	.4475	.4441	.4407	.4374	.4340
550.0	.4307	.4274	.4242	.4209	.4177	.4145	.4114	.4082	.4051	.4020
600.0	.3990	.3959	.3929	.3899	.3869	.3840	.3810	.3781	.3753	.3724
650.0	.3696	.3667	.3639	.3612	.3584	.3557	.3530	.3503	.3476	.3449
700.0	.3423	.3397	.3371	.3345	.3320	.3295	.3269	.3244	.3220	.3195
750.0	.3171	.3147	.3123	.3099	.3075	.3052	.3028	.3005	.2982	.2960
800.0	.2937	.2915	.2892	.2870	.2848	.2827	.2805	.2784	.2763	.2741
850.0	.2721	.2700	.2679	.2659	.2638	.2618	.2598	.2579	.2559	.2539
900.0	.2520	.2501	.2482	.2463	.2444	.2425	.2407	.2388	.2370	.2352
950.0	.2334	.2316	.2299	.2281	.2264	.2247	.2229	.2212	.2196	.2179
1000.0	.2162	.2146	.2129	.2113	.2097	.2081	.2065	.2049	.2034	.2018
1050.0	.2003	.1987	.1972	.1957	.1942	.1928	.1913	.1898	.1884	.1869
1100.0	.1855	.1841	.1827	.1813	.1799	.1785	.1772	.1758	.1745	.1732
1150.0	.1718	.1705	.1692	.1679	.1667	.1654	.1641	.1629	.1616	.1604
1200.0	.1592	.1580	.1568	.1556	.1544	.1532	.1520	.1509	.1497	.1486
1250.0	.1474	.1463	.1452	.1441	.1430	.1419	.1408	.1397	.1387	.1376
1300.0	.1366	.1355	.1345	.1335	.1324	.1314	.1304	.1294	.1285	.1275
1350.0	.1265	.1255	.1246	.1236	.1227	.1218	.1208	.1199	.1190	.1181
1400.0	.1172	.1163	.1154	.1145	.1136	.1128	.1119	.1111	.1102	.1094
1450.0	.1085	.1077	.1069	.1061	.1053	.1045	.1037	.1029	.1021	.1013
1500.0	.1005	.0998	.0990	.0983	.0975	.0968	.0960	.0953	.0946	.0938
1550.0	.0931	.0924	.0917	.0910	.0903	.0896	.0889	.0883	.0876	.0869
1600.0	.0863	.0856	.0850	.0843	.0837	.0830	.0824	.0818	.0811	.0805
1650.0	.0799	.0793	.0787	.0781	.0775	.0769	.0763	.0757	.0752	.0746

CD - 115

HALF-LIFE 53.50 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9935	.9871	.9808	.9744	.9681	.9619	.9557	.9495	.9434	.9373	.9312
6.00	.9252	.9192	.9133	.9074	.9015	.8957	.8899	.8842	.8785	.8728	.8672	.8616
12.00	.8560	.8505	.8450	.8395	.8341	.8287	.8234	.8181	.8128	.8075	.8023	.7971
18.00	.7920	.7869	.7818	.7767	.7717	.7667	.7618	.7569	.7520	.7471	.7423	.7375
24.00	.7328	.7280	.7233	.7187	.7140	.7094	.7048	.7003	.6957	.6913	.6868	.6824
30.00	.6780	.6736	.6692	.6649	.6606	.6563	.6521	.6479	.6437	.6396	.6354	.6313
36.00	.6272	.6232	.6192	.6152	.6112	.6073	.6033	.5994	.5956	.5917	.5879	.5841
42.00	.5803	.5766	.5729	.5692	.5655	.5618	.5582	.5546	.5510	.5475	.5439	.5404
48.00	.5369	.5335	.5300	.5266	.5232	.5198	.5165	.5131	.5098	.5065	.5032	.5000
54.00	.4968	.4936	.4904	.4872	.4841	.4809	.4778	.4747	.4717	.4686	.4656	.4626
60.00	.4596	.4566	.4537	.4508	.4479	.4450	.4421	.4392	.4364	.4336	.4308	.4280
66.00	.4252	.4225	.4198	.4171	.4144	.4117	.4090	.4064	.4038	.4012	.3986	.3960
72.00	.3934	.3909	.3884	.3859	.3834	.3809	.3784	.3760	.3736	.3712	.3688	.3664
78.00	.3640	.3617	.3593	.3570	.3547	.3524	.3501	.3479	.3456	.3434	.3412	.3390
84.00	.3368	.3346	.3325	.3303	.3282	.3261	.3239	.3219	.3198	.3177	.3157	.3136
90.00	.3116	.3096	.3076	.3056	.3036	.3017	.2997	.2978	.2959	.2940	.2921	.2902
96.00	.2883	.2864	.2846	.2827	.2809	.2791	.2773	.2755	.2737	.2720	.2702	.2685
102.00	.2667	.2650	.2633	.2616	.2599	.2582	.2566	.2549	.2533	.2516	.2500	.2484
108.00	.2468	.2452	.2436	.2420	.2405	.2389	.2374	.2358	.2343	.2328	.2313	.2298
114.00	.2283	.2269	.2254	.2239	.2225	.2210	.2196	.2182	.2168	.2154	.2140	.2126
120.00	.2112	.2099	.2085	.2072	.2058	.2045	.2032	.2019	.2006	.1993	.1980	.1967
126.00	.1954	.1942	.1929	.1917	.1904	.1892	.1880	.1868	.1856	.1844	.1832	.1820
132.00	.1808	.1797	.1785	.1774	.1762	.1751	.1739	.1728	.1717	.1706	.1695	.1684
138.00	.1673	.1662	.1652	.1641	.1630	.1620	.1609	.1599	.1589	.1578	.1568	.1558
144.00	.1548	.1538	.1528	.1518	.1508	.1499	.1489	.1479	.1470	.1460	.1451	.1441
150.00	.1432	.1423	.1414	.1405	.1396	.1387	.1378	.1369	.1360	.1351	.1342	.1334
156.00	.1325	.1316	.1308	.1300	.1291	.1283	.1275	.1266	.1258	.1250	.1242	.1234
162.00	.1226	.1218	.1210	.1202	.1195	.1187	.1179	.1172	.1164	.1157	.1149	.1142
168.00	.1134	.1127	.1120	.1112	.1105	.1098	.1091	.1084	.1077	.1070	.1063	.1056
174.00	.1049	.1043	.1036	.1029	.1023	.1016	.1009	.1003	.0996	.0990	.0984	.0977
180.00	.0971	.0965	.0958	.0952	.0946	.0940	.0934	.0928	.0922	.0916	.0910	.0904
186.00	.0898	.0893	.0887	.0881	.0875	.0870	.0864	.0858	.0853	.0847	.0842	.0837
192.00	.0831	.0826	.0820	.0815	.0810	.0805	.0799	.0794	.0789	.0784	.0779	.0774

IN - 113M

HALF-LIFE 99.80 MINUTES CALCULATION INTERVAL 1.0 MINUTES

MINUTES	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9931	.9862	.9794	.9726	.9659	.9592	.9525	.9460	.9394
10.0	.9329	.9264	.9200	.9137	.9073	.9011	.8948	.8886	.8825	.8764
20.0	.8703	.8643	.8583	.8524	.8465	.8406	.8348	.8290	.8233	.8176
30.0	.8119	.8063	.8007	.7952	.7897	.7842	.7788	.7734	.7680	.7627
40.0	.7574	.7522	.7470	.7418	.7367	.7316	.7265	.7215	.7165	.7115
50.0	.7066	.7017	.6969	.6920	.6873	.6825	.6778	.6731	.6684	.6638
60.0	.6592	.6546	.6501	.6456	.6411	.6367	.6323	.6279	.6236	.6193
70.0	.6150	.6107	.6065	.6023	.5981	.5940	.5899	.5858	.5817	.5777
80.0	.5737	.5697	.5658	.5619	.5580	.5541	.5503	.5465	.5427	.5389
90.0	.5352	.5315	.5278	.5242	.5206	.5169	.5134	.5098	.5063	.5028
100.0	.4993	.4959	.4924	.4890	.4856	.4823	.4789	.4756	.4723	.4691
110.0	.4658	.4626	.4594	.4562	.4530	.4499	.4468	.4437	.4406	.4376
120.0	.4346	.4315	.4286	.4256	.4226	.4197	.4168	.4139	.4111	.4082
130.0	.4054	.4026	.3998	.3970	.3943	.3916	.3888	.3862	.3835	.3808
140.0	.3782	.3756	.3730	.3704	.3678	.3653	.3628	.3602	.3578	.3553

IN - 113M

HALF-LIFE 99.80 MINUTES CALCULATION INTERVAL 1.0 MINUTES

MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
150.0	.3528	.3504	.3480	.3455	.3432	.3408	.3384	.3361	.3337	.3314
160.0	.3291	.3269	.3246	.3224	.3201	.3179	.3157	.3135	.3114	.3092
170.0	.3071	.3049	.3026	.3007	.2986	.2966	.2945	.2925	.2905	.2885
180.0	.2865	.2845	.2825	.2806	.2786	.2767	.2748	.2729	.2710	.2691
190.0	.2672	.2654	.2636	.2617	.2599	.2581	.2563	.2546	.2528	.2510
200.0	.2493	.2476	.2459	.2442	.2425	.2408	.2391	.2375	.2358	.2342
210.0	.2326	.2310	.2294	.2278	.2262	.2246	.2231	.2215	.2200	.2185
220.0	.2170	.2155	.2140	.2125	.2110	.2096	.2081	.2067	.2052	.2038
230.0	.2024	.2010	.1996	.1982	.1969	.1955	.1942	.1928	.1915	.1902
240.0	.1888	.1875	.1862	.1849	.1837	.1824	.1811	.1799	.1786	.1774
250.0	.1762	.1749	.1737	.1725	.1713	.1702	.1690	.1678	.1666	.1655
260.0	.1643	.1632	.1621	.1610	.1598	.1587	.1576	.1565	.1555	.1544
270.0	.1533	.1523	.1512	.1502	.1491	.1481	.1471	.1460	.1450	.1440
280.0	.1430	.1420	.1411	.1401	.1391	.1381	.1372	.1362	.1353	.1344
290.0	.1334	.1325	.1316	.1307	.1298	.1289	.1280	.1271	.1262	.1253
300.0	.1245	.1236	.1228	.1219	.1211	.1202	.1194	.1186	.1178	.1169
310.0	.1161	.1153	.1145	.1137	.1129	.1122	.1114	.1106	.1099	.1091
320.0	.1083	.1076	.1068	.1061	.1054	.1046	.1039	.1032	.1025	.1018
330.0	.1011	.1004	.0997	.0990	.0983	.0976	.0969	.0963	.0956	.0949
340.0	.0943	.0936	.0930	.0923	.0917	.0911	.0904	.0898	.0892	.0886
350.0	.0880	.0874	.0867	.0861	.0855	.0850	.0844	.0838	.0832	.0826
360.0	.0821	.0815	.0809	.0804	.0798	.0793	.0787	.0782	.0776	.0771

SN - 113

HALF-LIFE 115.00 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9940	.9880	.9821	.9762	.9703	.9645	.9587	.9529	.9472	.9415	.9358
12.00	.9302	.9246	.9191	.9136	.9081	.9026	.8972	.8918	.8864	.8811	.8758	.8706
24.00	.8653	.8601	.8550	.8498	.8447	.8396	.8346	.8296	.8246	.8196	.8147	.8098
36.00	.8049	.8001	.7953	.7905	.7858	.7810	.7764	.7717	.7670	.7624	.7579	.7533
48.00	.7488	.7443	.7398	.7354	.7309	.7265	.7222	.7178	.7135	.7092	.7050	.7007
60.00	.6965	.6923	.6882	.6841	.6799	.6759	.6718	.6678	.6637	.6598	.6558	.6518
72.00	.6479	.6440	.6402	.6363	.6325	.6287	.6249	.6212	.6174	.6137	.6100	.6064
84.00	.6027	.5991	.5955	.5919	.5884	.5848	.5813	.5778	.5743	.5709	.5675	.5641
96.00	.5607	.5573	.5539	.5506	.5473	.5440	.5408	.5375	.5343	.5311	.5279	.5247
108.00	.5215	.5184	.5153	.5122	.5091	.5061	.5030	.5000	.4970	.4940	.4910	.4881
120.00	.4852	.4822	.4793	.4765	.4736	.4708	.4679	.4651	.4623	.4595	.4568	.4540
132.00	.4513	.4486	.4459	.4432	.4406	.4379	.4353	.4327	.4301	.4275	.4249	.4224
144.00	.4198	.4173	.4148	.4123	.4098	.4074	.4049	.4025	.4001	.3976	.3953	.3929
156.00	.3905	.3882	.3858	.3835	.3812	.3789	.3767	.3744	.3721	.3699	.3677	.3655
168.00	.3633	.3611	.3589	.3568	.3546	.3525	.3504	.3483	.3462	.3441	.3420	.3400
180.00	.3379	.3359	.3339	.3319	.3299	.3279	.3259	.3240	.3220	.3201	.3182	.3162
192.00	.3143	.3125	.3106	.3087	.3069	.3050	.3032	.3014	.2996	.2978	.2960	.2942
204.00	.2924	.2907	.2889	.2872	.2854	.2837	.2820	.2803	.2786	.2770	.2753	.2737
216.00	.2720	.2704	.2688	.2671	.2655	.2639	.2624	.2608	.2592	.2576	.2561	.2546
228.00	.2530	.2515	.2500	.2485	.2470	.2455	.2440	.2426	.2411	.2397	.2382	.2368
240.00	.2354	.2340	.2326	.2312	.2298	.2284	.2270	.2257	.2243	.2229	.2216	.2203
252.00	.2190	.2176	.2163	.2150	.2137	.2125	.2112	.2099	.2086	.2074	.2061	.2049
264.00	.2037	.2025	.2012	.2000	.1988	.1976	.1964	.1953	.1941	.1929	.1918	.1906
276.00	.1895	.1883	.1872	.1861	.1850	.1838	.1827	.1816	.1805	.1795	.1784	.1773
288.00	.1762	.1752	.1741	.1731	.1720	.1710	.1700	.1690	.1679	.1669	.1659	.1649

SN - 113

HALF-LIFE 115.00 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
					HOURS							
300.00	.1639	.1630	.1620	.1610	.1600	.1591	.1581	.1572	.1562	.1553	.1544	.1534
312.00	.1525	.1516	.1507	.1498	.1489	.1480	.1471	.1462	.1453	.1445	.1436	.1427
324.00	.1419	.1410	.1402	.1393	.1385	.1377	.1368	.1360	.1352	.1344	.1336	.1328
336.00	.1320	.1312	.1304	.1296	.1288	.1281	.1273	.1265	.1258	.1250	.1242	.1235
348.00	.1228	.1220	.1213	.1206	.1198	.1191	.1184	.1177	.1170	.1163	.1156	.1149
360.00	.1142	.1135	.1128	.1121	.1115	.1108	.1101	.1095	.1088	.1082	.1075	.1069
372.00	.1062	.1056	.1050	.1043	.1037	.1031	.1025	.1018	.1012	.1006	.1000	.0994
384.00	.0988	.0982	.0976	.0970	.0965	.0959	.0953	.0947	.0942	.0936	.0930	.0925
396.00	.0919	.0914	.0908	.0903	.0897	.0892	.0887	.0881	.0876	.0871	.0865	.0860
408.00	.0855	.0850	.0845	.0840	.0835	.0830	.0825	.0820	.0815	.0810	.0805	.0800
420.00	.0795	.0791	.0786	.0781	.0776	.0772	.0767	.0763	.0758	.0753	.0749	.0744

SB - 124

HALF-LIFE 60.40 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
					HOURS							
0.00	1.0000	.9962	.9924	.9886	.9848	.9811	.9773	.9736	.9699	.9662	.9625	.9588
4.00	.9551	.9515	.9479	.9442	.9406	.9370	.9335	.9299	.9263	.9228	.9193	.9158
8.00	.9123	.9088	.9053	.9019	.8984	.8950	.8916	.8882	.8848	.8814	.8780	.8747
12.00	.8714	.8680	.8647	.8614	.8581	.8548	.8516	.8483	.8451	.8419	.8386	.8354
16.00	.8323	.8291	.8259	.8228	.8196	.8165	.8134	.8103	.8072	.8041	.8010	.7980
20.00	.7949	.7919	.7889	.7858	.7828	.7799	.7769	.7739	.7710	.7680	.7651	.7622
24.00	.7593	.7564	.7535	.7506	.7477	.7449	.7420	.7392	.7364	.7336	.7308	.7280
28.00	.7252	.7224	.7197	.7169	.7142	.7114	.7087	.7060	.7033	.7006	.6980	.6953
32.00	.6927	.6900	.6874	.6847	.6821	.6795	.6769	.6743	.6718	.6692	.6667	.6641
36.00	.6616	.6590	.6565	.6540	.6515	.6490	.6466	.6441	.6416	.6392	.6367	.6343
40.00	.6319	.6295	.6271	.6247	.6223	.6199	.6176	.6152	.6128	.6105	.6082	.6059
44.00	.6035	.6012	.5989	.5967	.5944	.5921	.5898	.5876	.5854	.5831	.5809	.5787
48.00	.5765	.5743	.5721	.5699	.5677	.5655	.5634	.5612	.5591	.5570	.5548	.5527
52.00	.5506	.5485	.5464	.5443	.5422	.5402	.5381	.5361	.5340	.5320	.5299	.5279
56.00	.5259	.5239	.5219	.5199	.5179	.5159	.5140	.5120	.5100	.5081	.5062	.5042
60.00	.5023	.5004	.4985	.4966	.4947	.4928	.4909	.4890	.4872	.4853	.4834	.4816
64.00	.4798	.4779	.4761	.4743	.4725	.4707	.4689	.4671	.4653	.4635	.4618	.4600
68.00	.4582	.4565	.4547	.4530	.4513	.4496	.4478	.4461	.4444	.4427	.4410	.4394
72.00	.4377	.4360	.4343	.4327	.4310	.4294	.4277	.4261	.4245	.4229	.4213	.4196
76.00	.4180	.4164	.4149	.4133	.4117	.4101	.4086	.4070	.4054	.4039	.4024	.4008
80.00	.3993	.3978	.3962	.3947	.3932	.3917	.3902	.3887	.3873	.3858	.3843	.3828
84.00	.3814	.3799	.3785	.3770	.3756	.3741	.3727	.3713	.3699	.3685	.3671	.3657
88.00	.3643	.3629	.3615	.3601	.3587	.3574	.3560	.3546	.3533	.3519	.3506	.3493
92.00	.3479	.3466	.3453	.3439	.3426	.3413	.3400	.3387	.3374	.3361	.3349	.3336
96.00	.3323	.3310	.3298	.3285	.3273	.3260	.3248	.3235	.3223	.3211	.3198	.3186
100.00	.3174	.3162	.3150	.3138	.3126	.3114	.3102	.3090	.3078	.3067	.3055	.3043
104.00	.3032	.3020	.3008	.2997	.2986	.2974	.2963	.2951	.2940	.2929	.2918	.2907
108.00	.2896	.2885	.2874	.2863	.2852	.2841	.2830	.2819	.2808	.2798	.2787	.2776
112.00	.2766	.2755	.2745	.2734	.2724	.2713	.2703	.2693	.2682	.2672	.2662	.2652
116.00	.2642	.2631	.2621	.2611	.2601	.2592	.2582	.2572	.2562	.2552	.2542	.2533
120.00	.2523	.2513	.2504	.2494	.2485	.2475	.2466	.2456	.2447	.2438	.2428	.2419
124.00	.2410	.2401	.2391	.2382	.2373	.2364	.2355	.2346	.2337	.2328	.2319	.2311
128.00	.2302	.2293	.2284	.2275	.2267	.2258	.2250	.2241	.2232	.2224	.2215	.2207
132.00	.2198	.2190	.2182	.2173	.2165	.2157	.2149	.2140	.2132	.2124	.2116	.2108
136.00	.2100	.2092	.2084	.2076	.2068	.2060	.2052	.2044	.2037	.2029	.2021	.2013

SB - 124

HALF-LIFE 60.40 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
140.00	.2006	.1998	.1990	.1983	.1975	.1968	.1960	.1953	.1945	.1938	.1930	.1923
144.00	.1916	.1908	.1901	.1894	.1887	.1879	.1872	.1865	.1858	.1851	.1844	.1837
148.00	.1830	.1823	.1816	.1809	.1802	.1795	.1788	.1781	.1775	.1768	.1761	.1754
152.00	.1748	.1741	.1734	.1728	.1721	.1714	.1708	.1701	.1695	.1688	.1682	.1676
156.00	.1669	.1663	.1656	.1650	.1644	.1638	.1631	.1625	.1619	.1613	.1607	.1600
160.00	.1594	.1588	.1582	.1576	.1570	.1564	.1558	.1552	.1546	.1540	.1534	.1529
164.00	.1523	.1517	.1511	.1505	.1500	.1494	.1488	.1483	.1477	.1471	.1466	.1460
168.00	.1454	.1449	.1443	.1438	.1432	.1427	.1421	.1416	.1411	.1405	.1400	.1395
172.00	.1389	.1384	.1379	.1373	.1368	.1363	.1358	.1352	.1347	.1342	.1337	.1332
176.00	.1327	.1322	.1317	.1312	.1307	.1302	.1297	.1292	.1287	.1282	.1277	.1272
180.00	.1267	.1262	.1258	.1253	.1248	.1243	.1239	.1234	.1229	.1224	.1220	.1215
184.00	.1210	.1206	.1201	.1197	.1192	.1188	.1183	.1178	.1174	.1170	.1165	.1161
188.00	.1156	.1152	.1147	.1143	.1139	.1134	.1130	.1126	.1121	.1117	.1113	.1109
192.00	.1104	.1100	.1096	.1092	.1088	.1083	.1079	.1075	.1071	.1067	.1063	.1059
196.00	.1055	.1051	.1047	.1043	.1039	.1035	.1031	.1027	.1023	.1019	.1015	.1011
200.00	.1007	.1004	.1000	.0996	.0992	.0988	.0985	.0981	.0977	.0973	.0970	.0966
204.00	.0962	.0959	.0955	.0951	.0948	.0944	.0940	.0937	.0933	.0930	.0926	.0923
208.00	.0919	.0916	.0912	.0909	.0905	.0902	.0898	.0895	.0891	.0888	.0885	.0881
212.00	.0878	.0874	.0871	.0868	.0864	.0861	.0858	.0855	.0851	.0848	.0845	.0842
216.00	.0838	.0835	.0832	.0829	.0826	.0823	.0819	.0816	.0813	.0810	.0807	.0804
220.00	.0801	.0798	.0795	.0792	.0789	.0786	.0783	.0780	.0777	.0774	.0771	.0768

SB - 125

HALF-LIFE 2.71 YEARS CALCULATION INTERVAL 5.0 DAYS

	DAYS									
DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9965	.9930	.9895	.9861	.9826	.9792	.9758	.9724	.9690
50.0	.9656	.9622	.9588	.9555	.9521	.9488	.9455	.9422	.9389	.9356
100.0	.9323	.9291	.9258	.9226	.9193	.9161	.9129	.9097	.9066	.9034
150.0	.9002	.8971	.8939	.8908	.8877	.8846	.8815	.8784	.8753	.8723
200.0	.8692	.8662	.8632	.8601	.8571	.8541	.8511	.8482	.8452	.8422
250.0	.8393	.8364	.8334	.8305	.8276	.8247	.8218	.8190	.8161	.8132
300.0	.8104	.8076	.8047	.8019	.7991	.7963	.7935	.7908	.7880	.7852
350.0	.7825	.7798	.7770	.7743	.7716	.7689	.7662	.7635	.7609	.7582
400.0	.7556	.7529	.7503	.7477	.7450	.7424	.7398	.7373	.7347	.7321
450.0	.7295	.7270	.7244	.7219	.7194	.7169	.7144	.7119	.7094	.7069
500.0	.7044	.7020	.6995	.6971	.6946	.6922	.6898	.6874	.6850	.6826
550.0	.6802	.6778	.6754	.6731	.6707	.6684	.6660	.6637	.6614	.6591
600.0	.6568	.6545	.6522	.6499	.6476	.6453	.6431	.6408	.6386	.6364
650.0	.6341	.6319	.6297	.6275	.6253	.6231	.6209	.6188	.6166	.6145
700.0	.6123	.6102	.6080	.6059	.6038	.6017	.5996	.5975	.5954	.5933
750.0	.5912	.5892	.5871	.5850	.5830	.5810	.5789	.5769	.5749	.5729
800.0	.5709	.5689	.5669	.5649	.5629	.5610	.5590	.5570	.5551	.5531
850.0	.5512	.5493	.5474	.5454	.5435	.5416	.5397	.5379	.5360	.5341
900.0	.5322	.5304	.5285	.5267	.5248	.5230	.5212	.5193	.5175	.5157
950.0	.5139	.5121	.5103	.5085	.5068	.5050	.5032	.5015	.4997	.4980
1000.0	.4962	.4945	.4927	.4910	.4893	.4876	.4859	.4842	.4825	.4808
1050.0	.4791	.4775	.4758	.4741	.4725	.4708	.4692	.4675	.4659	.4643
1100.0	.4626	.4610	.4594	.4578	.4562	.4546	.4530	.4514	.4498	.4483
1150.0	.4467	.4451	.4436	.4420	.4405	.4389	.4374	.4359	.4344	.4328
1200.0	.4313	.4298	.4283	.4268	.4253	.4238	.4223	.4209	.4194	.4179

HALF-LIFE 2.71 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	DAYS 20.0	25.0	30.0	35.0	40.0	45.0
1250.0	.4165	.4150	.4136	.4121	.4107	.4092	.4078	.4064	.4050	.4035
1300.0	.4021	.4007	.3993	.3979	.3965	.3951	.3938	.3924	.3910	.3896
1350.0	.3883	.3869	.3856	.3842	.3829	.3815	.3802	.3789	.3776	.3762
1400.0	.3749	.3736	.3723	.3710	.3697	.3684	.3671	.3658	.3646	.3633
1450.0	.3620	.3607	.3595	.3582	.3570	.3557	.3545	.3532	.3520	.3508
1500.0	.3495	.3483	.3471	.3459	.3447	.3435	.3423	.3411	.3399	.3387
1550.0	.3375	.3363	.3352	.3340	.3328	.3316	.3305	.3293	.3282	.3270
1600.0	.3259	.3247	.3236	.3225	.3214	.3202	.3191	.3180	.3169	.3158
1650.0	.3147	.3136	.3125	.3114	.3103	.3092	.3081	.3070	.3060	.3049
1700.0	.3038	.3028	.3017	.3007	.2996	.2986	.2975	.2965	.2954	.2944
1750.0	.2934	.2923	.2913	.2903	.2893	.2883	.2873	.2863	.2853	.2843
1800.0	.2833	.2823	.2813	.2803	.2793	.2784	.2774	.2764	.2754	.2745
1850.0	.2735	.2726	.2716	.2707	.2697	.2688	.2678	.2669	.2660	.2650
1900.0	.2641	.2632	.2623	.2613	.2604	.2595	.2586	.2577	.2568	.2559
1950.0	.2550	.2541	.2532	.2523	.2515	.2506	.2497	.2488	.2480	.2471
2000.0	.2462	.2454	.2445	.2437	.2428	.2420	.2411	.2403	.2394	.2386
2050.0	.2377	.2369	.2361	.2353	.2344	.2336	.2328	.2320	.2312	.2304
2100.0	.2296	.2288	.2280	.2272	.2264	.2256	.2248	.2240	.2232	.2224
2150.0	.2217	.2209	.2201	.2193	.2186	.2178	.2170	.2163	.2155	.2148
2200.0	.2140	.2133	.2125	.2118	.2110	.2103	.2096	.2088	.2081	.2074
2250.0	.2067	.2059	.2052	.2045	.2038	.2031	.2024	.2017	.2009	.2002
2300.0	.1995	.1988	.1981	.1975	.1968	.1961	.1954	.1947	.1940	.1933
2350.0	.1927	.1920	.1913	.1907	.1900	.1893	.1887	.1880	.1873	.1867
2400.0	.1860	.1854	.1847	.1841	.1834	.1828	.1822	.1815	.1809	.1803
2450.0	.1796	.1790	.1784	.1778	.1771	.1765	.1759	.1753	.1747	.1741
2500.0	.1734	.1728	.1722	.1716	.1710	.1704	.1698	.1692	.1687	.1681
2550.0	.1675	.1669	.1663	.1657	.1651	.1646	.1640	.1634	.1628	.1623
2600.0	.1617	.1611	.1606	.1600	.1595	.1589	.1583	.1578	.1572	.1567
2650.0	.1561	.1556	.1551	.1545	.1540	.1534	.1529	.1524	.1518	.1513
2700.0	.1508	.1502	.1497	.1492	.1487	.1481	.1476	.1471	.1466	.1461
2750.0	.1456	.1451	.1446	.1441	.1435	.1430	.1425	.1420	.1416	.1411
2800.0	.1406	.1401	.1396	.1391	.1386	.1381	.1376	.1372	.1367	.1362
2850.0	.1357	.1352	.1348	.1343	.1338	.1334	.1329	.1324	.1320	.1315
2900.0	.1311	.1306	.1301	.1297	.1292	.1288	.1283	.1279	.1274	.1270
2950.0	.1265	.1261	.1257	.1252	.1248	.1243	.1239	.1235	.1230	.1226
3000.0	.1222	.1218	.1213	.1209	.1205	.1201	.1196	.1192	.1188	.1184
3050.0	.1180	.1176	.1172	.1167	.1163	.1159	.1155	.1151	.1147	.1143
3100.0	.1139	.1135	.1131	.1127	.1123	.1119	.1115	.1112	.1108	.1104
3150.0	.1100	.1096	.1092	.1088	.1085	.1081	.1077	.1073	.1070	.1066
3200.0	.1062	.1058	.1055	.1051	.1047	.1044	.1040	.1036	.1033	.1029
3250.0	.1025	.1022	.1018	.1015	.1011	.1008	.1004	.1001	.0997	.0994
3300.0	.0990	.0987	.0983	.0980	.0976	.0973	.0970	.0966	.0963	.0959
3350.0	.0956	.0953	.0949	.0946	.0943	.0939	.0936	.0933	.0930	.0926
3400.0	.0923	.0920	.0917	.0913	.0910	.0907	.0904	.0901	.0898	.0894
3450.0	.0891	.0888	.0885	.0882	.0879	.0876	.0873	.0870	.0867	.0864
3500.0	.0861	.0858	.0855	.0852	.0849	.0846	.0843	.0840	.0837	.0834
3550.0	.0831	.0828	.0825	.0822	.0819	.0817	.0814	.0811	.0808	.0805
3600.0	.0802	.0800	.0797	.0794	.0791	.0788	.0786	.0783	.0780	.0778

HALF-LIFE 24.80 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	SECONDS 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9977	.9954	.9930	.9907	.9884	.9861	.9838	.9815	.9793	.9770	.9747
1.00	.9724	.9702	.9679	.9657	.9634	.9612	.9589	.9567	.9545	.9523	.9500	.9478
2.00	.9456	.9434	.9412	.9391	.9369	.9347	.9325	.9303	.9282	.9260	.9239	.9217
3.00	.9196	.9174	.9153	.9132	.9110	.9089	.9068	.9047	.9026	.9005	.8984	.8963
4.00	.8942	.8921	.8901	.8880	.8859	.8839	.8818	.8798	.8777	.8757	.8736	.8716
5.00	.8696	.8676	.8655	.8635	.8615	.8595	.8575	.8555	.8535	.8515	.8496	.8476
6.00	.8456	.8436	.8417	.8397	.8378	.8358	.8339	.8319	.8300	.8281	.8261	.8242
7.00	.8223	.8204	.8185	.8166	.8147	.8128	.8109	.8090	.8071	.8052	.8034	.8015
8.00	.7996	.7978	.7959	.7941	.7922	.7904	.7885	.7867	.7849	.7831	.7812	.7794
9.00	.7776	.7758	.7740	.7722	.7704	.7686	.7668	.7650	.7632	.7615	.7597	.7579
10.00	.7562	.7544	.7527	.7509	.7492	.7474	.7457	.7439	.7422	.7405	.7388	.7370
11.00	.7353	.7336	.7319	.7302	.7285	.7268	.7251	.7234	.7217	.7201	.7184	.7167
12.00	.7151	.7134	.7117	.7101	.7084	.7068	.7051	.7035	.7019	.7002	.6986	.6970
13.00	.6953	.6937	.6921	.6905	.6889	.6873	.6857	.6841	.6825	.6809	.6793	.6778
14.00	.6762	.6746	.6730	.6715	.6699	.6684	.6668	.6652	.6637	.6622	.6606	.6591
15.00	.6575	.6560	.6545	.6530	.6514	.6499	.6484	.6469	.6454	.6439	.6424	.6409
16.00	.6394	.6379	.6364	.6350	.6335	.6320	.6305	.6291	.6276	.6262	.6247	.6232
17.00	.6218	.6204	.6189	.6175	.6160	.6146	.6132	.6117	.6103	.6089	.6075	.6061
18.00	.6047	.6033	.6018	.6004	.5991	.5977	.5963	.5949	.5935	.5921	.5907	.5894
19.00	.5880	.5866	.5853	.5839	.5825	.5812	.5798	.5785	.5771	.5758	.5745	.5731
20.00	.5718	.5705	.5691	.5678	.5665	.5652	.5639	.5625	.5612	.5599	.5586	.5573
21.00	.5560	.5547	.5534	.5522	.5509	.5496	.5483	.5470	.5458	.5445	.5432	.5420
22.00	.5407	.5394	.5382	.5369	.5357	.5344	.5332	.5320	.5307	.5295	.5283	.5270
23.00	.5258	.5246	.5234	.5221	.5209	.5197	.5185	.5173	.5161	.5149	.5137	.5125
24.00	.5113	.5101	.5089	.5077	.5066	.5054	.5042	.5030	.5019	.5007	.4995	.4984
25.00	.4972	.4961	.4949	.4938	.4926	.4915	.4903	.4892	.4880	.4869	.4858	.4846
26.00	.4835	.4824	.4813	.4801	.4790	.4779	.4768	.4757	.4746	.4735	.4724	.4713
27.00	.4702	.4691	.4680	.4669	.4658	.4647	.4637	.4626	.4615	.4604	.4594	.4583
28.00	.4572	.4562	.4551	.4540	.4530	.4519	.4509	.4498	.4488	.4477	.4467	.4457
29.00	.4446	.4436	.4426	.4415	.4405	.4395	.4384	.4374	.4364	.4354	.4344	.4334
30.00	.4324	.4314	.4304	.4294	.4284	.4274	.4264	.4254	.4244	.4234	.4224	.4214
31.00	.4204	.4195	.4185	.4175	.4165	.4156	.4146	.4136	.4127	.4117	.4108	.4098
32.00	.4089	.4079	.4070	.4060	.4051	.4041	.4032	.4022	.4013	.4004	.3994	.3985
33.00	.3976	.3967	.3957	.3948	.3939	.3930	.3921	.3912	.3903	.3893	.3884	.3875
34.00	.3866	.3857	.3848	.3839	.3830	.3822	.3813	.3804	.3795	.3786	.3777	.3769
35.00	.3760	.3751	.3742	.3734	.3725	.3716	.3708	.3699	.3690	.3682	.3673	.3665
36.00	.3656	.3648	.3639	.3631	.3622	.3614	.3605	.3597	.3589	.3580	.3572	.3564
37.00	.3555	.3547	.3539	.3531	.3522	.3514	.3506	.3498	.3490	.3482	.3474	.3465
38.00	.3457	.3449	.3441	.3433	.3425	.3417	.3409	.3401	.3394	.3386	.3378	.3370
39.00	.3362	.3354	.3346	.3339	.3331	.3323	.3315	.3308	.3300	.3292	.3285	.3277
40.00	.3269	.3262	.3254	.3247	.3239	.3232	.3224	.3217	.3209	.3202	.3194	.3187
41.00	.3179	.3172	.3165	.3157	.3150	.314[illegible]	.3135	.3128	.3121	.3113	.3106	.3099
42.00	.3092	.3084	.3077	.3070	.3063	.3056	.3049	.3042	.3035	.3028	.3020	.3013
43.00	.3006	.2999	.2992	.2986	.2979	.2972	.2965	.2958	.2951	.2944	.2937	.2930
44.00	.2924	.2917	.2910	.2903	.2896	.2890	.2883	.2876	.2870	.2863	.2856	.2850
45.00	.2843	.2836	.2830	.2823	.2817	.2810	.2804	.2797	.2791	.2784	.2778	.2771
46.00	.2765	.2758	.2752	.2745	.2739	.2733	.2726	.2720	.2714	.2707	.2701	.2695
47.00	.2688	.2682	.2676	.2670	.2664	.2657	.2651	.2645	.2639	.2633	.2627	.2620
48.00	.2614	.2608	.2602	.2596	.2590	.2584	.2578	.2572	.2566	.2560	.2554	.2548
49.00	.2542	.2536	.2530	.2525	.2519	.2513	.2507	.2501	.2495	.2490	.2484	.2478
50.00	.2472	.2466	.2461	.2455	.2449	.2444	.2438	.2432	.2427	.2421	.2415	.2410
51.00	.2404	.2398	.2393	.2387	.2382	.2376	.2371	.2365	.2360	.2354	.2349	.2343
52.00	.2338	.2332	.2327	.2322	.2316	.2311	.2305	.2300	.2295	.2289	.2284	.2279
53.00	.2273	.2268	.2263	.2258	.2252	.2247	.2242	.2237	.2231	.2226	.2221	.2216
54.00	.2211	.2206	.2200	.2195	.2190	.2185	.2180	.2175	.2170	.2165	.2160	.2155

TE - 131

HALF-LIFE 24.80 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
						SECONDS						
55.00	.2150	.2145	.2140	.2135	.2130	.2125	.2120	.2115	.2110	.2105	.2100	.2095
56.00	.2091	.2086	.2081	.2076	.2071	.2066	.2062	.2057	.2052	.2047	.2042	.2038
57.00	.2033	.2028	.2023	.2019	.2014	.2009	.2005	.2000	.1995	.1991	.1986	.1981
58.00	.1977	.1972	.1968	.1963	.1959	.1954	.1949	.1945	.1940	.1936	.1931	.1927
59.00	.1922	.1918	.1913	.1909	.1905	.1900	.1896	.1891	.1887	.1883	.1878	.1874
60.00	.1869	.1865	.1861	.1856	.1852	.1848	.1843	.1839	.1835	.1831	.1826	.1822
61.00	.1818	.1814	.1809	.1805	.1801	.1797	.1793	.1788	.1784	.1780	.1776	.1772
62.00	.1768	.1764	.1760	.1755	.1751	.1747	.1743	.1739	.1735	.1731	.1727	.1723
63.00	.1719	.1715	.1711	.1707	.1703	.1699	.1695	.1691	.1687	.1683	.1679	.1676
64.00	.1672	.1668	.1664	.1660	.1656	.1652	.1648	.1645	.1641	.1637	.1633	.1629
65.00	.1626	.1622	.1618	.1614	.1611	.1607	.1603	.1599	.1596	.1592	.1588	.1584
66.00	.1581	.1577	.1573	.1570	.1566	.1562	.1559	.1555	.1552	.1548	.1544	.1541
67.00	.1537	.1534	.1530	.1527	.1523	.1519	.1516	.1512	.1509	.1505	.1502	.1498
68.00	.1495	.1491	.1488	.1484	.1481	.1478	.1474	.1471	.1467	.1464	.1460	.1457
69.00	.1454	.1450	.1447	.1444	.1440	.1437	.1433	.1430	.1427	.1423	.1420	.1417
70.00	.1414	.1410	.1407	.1404	.1400	.1397	.1394	.1391	.1387	.1384	.1381	.1378
71.00	.1375	.1371	.1368	.1365	.1362	.1359	.1356	.1352	.1349	.1346	.1343	.1340
72.00	.1337	.1334	.1331	.1327	.1324	.1321	.1318	.1315	.1312	.1309	.1306	.1303
73.00	.1300	.1297	.1294	.1291	.1288	.1285	.1282	.1279	.1276	.1273	.1270	.1267
74.00	.1264	.1261	.1258	.1255	.1252	.1249	.1247	.1244	.1241	.1238	.1235	.1232
75.00	.1229	.1226	.1224	.1221	.1218	.1215	.1212	.1209	.1207	.1204	.1201	.1198
76.00	.1195	.1193	.1190	.1187	.1184	.1181	.1179	.1176	.1173	.1171	.1168	.1165
77.00	.1162	.1160	.1157	.1154	.1152	.1149	.1146	.1144	.1141	.1138	.1136	.1133
78.00	.1130	.1128	.1125	.1122	.1120	.1117	.1115	.1112	.1109	.1107	.1104	.1102
79.00	.1099	.1097	.1094	.1092	.1089	.1086	.1084	.1081	.1079	.1076	.1074	.1071
80.00	.1069	.1066	.1064	.1061	.1059	.1057	.1054	.1052	.1049	.1047	.1044	.1042
81.00	.1039	.1037	.1035	.1032	.1030	.1027	.1025	.1023	.1020	.1018	.1016	.1013
82.00	.1011	.1008	.1006	.1004	.1001	.0999	.0997	.0994	.0992	.0990	.0988	.0985
83.00	.0983	.0981	.0978	.0976	.0974	.0972	.0969	.0967	.0965	.0963	.0960	.0958
84.00	.0956	.0954	.0951	.0949	.0947	.0945	.0943	.0940	.0938	.0936	.0934	.0932
85.00	.0929	.0927	.0925	.0923	.0921	.0919	.0917	.0914	.0912	.0910	.0908	.0906
86.00	.0904	.0902	.0900	.0898	.0895	.0893	.0891	.0889	.0887	.0885	.0883	.0881
87.00	.0879	.0877	.0875	.0873	.0871	.0869	.0867	.0865	.0863	.0861	.0859	.0857
88.00	.0855	.0853	.0851	.0849	.0847	.0845	.0843	.0841	.0839	.0837	.0835	.0833
89.00	.0831	.0829	.0827	.0825	.0823	.0822	.0820	.0818	.0816	.0814	.0812	.0810
90.00	.0808	.0806	.0805	.0803	.0801	.0799	.0797	.0795	.0793	.0791	.0790	.0788

TE - 132

HALF-LIFE 3.24 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
					HOURS							
0.00	1.0000	.9956	.9911	.9867	.9823	.9780	.9736	.9693	.9650	.9607	.9564	.9522
.25	.9479	.9437	.9395	.9353	.9312	.9270	.9229	.9188	.9147	.9107	.9066	.9026
.50	.8986	.8946	.8906	.8866	.8827	.8788	.8748	.8710	.8671	.8632	.8594	.8556
.75	.8518	.8480	.8442	.8404	.8367	.8330	.8293	.8256	.8219	.8183	.8146	.8110
1.00	.8074	.8038	.8002	.7967	.7931	.7896	.7861	.7826	.7791	.7757	.7722	.7688
1.25	.7654	.7619	.7586	.7552	.7518	.7485	.7452	.7418	.7385	.7353	.7320	.7287
1.50	.7255	.7223	.7191	.7159	.7127	.7095	.7064	.7032	.7001	.6970	.6939	.6908
1.75	.6877	.6847	.6816	.6786	.6756	.6726	.6696	.6666	.6636	.6607	.6577	.6548
2.00	.6519	.6490	.6461	.6432	.6404	.6375	.6347	.6319	.6291	.6263	.6235	.6207
2.25	.6179	.6152	.6125	.6097	.6070	.6043	.6016	.5990	.5963	.5937	.5910	.5884

TE - 132

HALF-LIFE 3.24 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
2.50	.5858	.5832	.5806	.5780	.5754	.5729	.5703	.5678	.5652	.5627	.5602	.5577
2.75	.5553	.5528	.5503	.5479	.5454	.5430	.5406	.5382	.5358	.5334	.5311	.5287
3.00	.5263	.5240	.5217	.5194	.5170	.5147	.5125	.5102	.5079	.5056	.5034	.5012
3.25	.4989	.4967	.4945	.4923	.4901	.4879	.4858	.4836	.4815	.4793	.4772	.4751
3.50	.4729	.4708	.4688	.4667	.4646	.4625	.4605	.4584	.4564	.4544	.4523	.4503
3.75	.4483	.4463	.4443	.4424	.4404	.4384	.4365	.4345	.4326	.4307	.4288	.4269
4.00	.4250	.4231	.4212	.4193	.4175	.4156	.4138	.4119	.4101	.4083	.4064	.4046
4.25	.4028	.4010	.3993	.3975	.3957	.3940	.3922	.3905	.3887	.3870	.3853	.3836
4.50	.3819	.3802	.3785	.3768	.3751	.3734	.3718	.3701	.3685	.3668	.3652	.3636
4.75	.3620	.3604	.3588	.3572	.3556	.3540	.3524	.3509	.3493	.3477	.3462	.3447
5.00	.3431	.3416	.3401	.3386	.3371	.3356	.3341	.3326	.3311	.3296	.3282	.3267
5.25	.3253	.3238	.3224	.3209	.3195	.3181	.3167	.3153	.3139	.3125	.3111	.3097
5.50	.3083	.3069	.3056	.3042	.3029	.3015	.3002	.2988	.2975	.2962	.2949	.2936
5.75	.2923	.2910	.2897	.2884	.2871	.2858	.2845	.2833	.2820	.2808	.2795	.2783
6.00	.2770	.2758	.2746	.2734	.2721	.2709	.2697	.2685	.2673	.2661	.2650	.2638
6.25	.2626	.2614	.2603	.2591	.2580	.2568	.2557	.2545	.2534	.2523	.2512	.2500
6.50	.2489	.2478	.2467	.2456	.2445	.2434	.2424	.2413	.2402	.2391	.2381	.2370
6.75	.2360	.2349	.2339	.2328	.2318	.2308	.2297	.2287	.2277	.2267	.2257	.2247
7.00	.2237	.2227	.2217	.2207	.2197	.2188	.2178	.2168	.2158	.2149	.2139	.2130
7.25	.2120	.2111	.2101	.2092	.2083	.2074	.2064	.2055	.2046	.2037	.2028	.2019
7.50	.2010	.2001	.1992	.1983	.1974	.1966	.1957	.1948	.1939	.1931	.1922	.1914
7.75	.1905	.1897	.1888	.1880	.1872	.1863	.1855	.1847	.1838	.1830	.1822	.1814
8.00	.1806	.1798	.1790	.1782	.1774	.1766	.1758	.1751	.1743	.1735	.1727	.1720
8.25	.1712	.1704	.1697	.1689	.1682	.1674	.1667	.1659	.1652	.1645	.1637	.1630
8.50	.1623	.1616	.1608	.1601	.1594	.1587	.1580	.1573	.1566	.1559	.1552	.1545
8.75	.1538	.1531	.1525	.1518	.1511	.1504	.1498	.1491	.1484	.1478	.1471	.1465
9.00	.1458	.1452	.1445	.1439	.1432	.1426	.1420	.1413	.1407	.1401	.1395	.1388
9.25	.1382	.1376	.1370	.1364	.1358	.1352	.1346	.1340	.1334	.1328	.1322	.1316
9.50	.1310	.1304	.1299	.1293	.1287	.1281	.1276	.1270	.1264	.1259	.1253	.1248
9.75	.1242	.1236	.1231	.1226	.1220	.1215	.1209	.1204	.1198	.1193	.1188	.1183
10.00	.1177	.1172	.1167	.1162	.1157	.1151	.1146	.1141	.1136	.1131	.1126	.1121
10.25	.1116	.1111	.1106	.1101	.1096	.1091	.1087	.1082	.1077	.1072	.1067	.1063
10.50	.1058	.1053	.1049	.1044	.1039	.1035	.1030	.1025	.1021	.1016	.1012	.1007
10.75	.1003	.0998	.0994	.0989	.0985	.0981	.0976	.0972	.0968	.0963	.0959	.0955
11.00	.0951	.0946	.0942	.0938	.0934	.0930	.0925	.0921	.0917	.0913	.0909	.0905
11.25	.0901	.0897	.0893	.0889	.0885	.0881	.0877	.0873	.0870	.0866	.0862	.0858
11.50	.0854	.0850	.0847	.0843	.0839	.0835	.0832	.0828	.0824	.0821	.0817	.0813
11.75	.0810	.0806	.0802	.0799	.0795	.0792	.0788	.0785	.0781	.0778	.0774	.0771

I - 123

HALF-LIFE 13.30 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	MINUTES 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9957	.9914	.9871	.9828	.9785	.9743	.9701	.9659	.9617	.9575	.9533
1.00	.9492	.9451	.9410	.9369	.9329	.9288	.9248	.9208	.9168	.9128	.9089	.9049
2.00	.9010	.8971	.8932	.8894	.8855	.8817	.8778	.8740	.8702	.8665	.8627	.8590
3.00	.8553	.8516	.8479	.8442	.8405	.8369	.8333	.8297	.8261	.8225	.8189	.8154
4.00	.8118	.8083	.8048	.8013	.7978	.7944	.7909	.7875	.7841	.7807	.7773	.7740
5.00	.7706	.7673	.7639	.7606	.7573	.7540	.7508	.7475	.7443	.7411	.7379	.7347
6.00	.7315	.7283	.7251	.7220	.7189	.7158	.7127	.7096	.7065	.7034	.7004	.6973
7.00	.6943	.6913	.6883	.6853	.6824	.6794	.6765	.6735	.6706	.6677	.6648	.6619
8.00	.6591	.6562	.6534	.6505	.6477	.6449	.6421	.6393	.6366	.6338	.6311	.6283
9.00	.6256	.6229	.6202	.6175	.6148	.6122	.6095	.6069	.6042	.6016	.5990	.5964

I - 123

HALF-LIFE 13.30 HOURS CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
10.00	.5938	.5913	.5887	.5861	.5836	.5811	.5786	.5760	.5736	.5711	.5686	.5661
11.00	.5637	.5612	.5588	.5564	.5540	.5516	.5492	.5468	.5444	.5421	.5397	.5374
12.00	.5350	.5327	.5304	.5281	.5258	.5236	.5213	.5190	.5168	.5145	.5123	.5101
13.00	.5079	.5057	.5035	.5013	.4991	.4970	.4948	.4927	.4905	.4884	.4863	.4842
14.00	.4821	.4800	.4779	.4758	.4738	.4717	.4697	.4677	.4656	.4636	.4616	.4596
15.00	.4576	.4556	.4536	.4517	.4497	.4478	.4458	.4439	.4420	.4401	.4382	.4363
16.00	.4344	.4325	.4306	.4287	.4269	.4250	.4232	.4214	.4195	.4177	.4159	.4141
17.00	.4123	.4105	.4087	.4070	.4052	.4035	.4017	.4000	.3982	.3965	.3948	.3931
18.00	.3914	.3897	.3880	.3863	.3846	.3830	.3813	.3797	.3780	.3764	.3747	.3731
19.00	.3715	.3699	.3683	.3667	.3651	.3635	.3619	.3604	.3588	.3573	.3557	.3542
20.00	.3526	.3511	.3496	.3481	.3466	.3451	.3436	.3421	.3406	.3391	.3376	.3362
21.00	.3347	.3333	.3318	.3304	.3290	.3275	.3261	.3247	.3233	.3219	.3205	.3191
22.00	.3177	.3164	.3150	.3136	.3123	.3109	.3096	.3082	.3069	.3055	.3042	.3029
23.00	.3016	.3003	.2990	.2977	.2964	.2951	.2938	.2926	.2913	.2900	.2888	.2875
24.00	.2863	.2850	.2838	.2826	.2813	.2801	.2789	.2777	.2765	.2753	.2741	.2729
25.00	.2717	.2706	.2694	.2682	.2671	.2659	.2648	.2636	.2625	.2613	.2602	.2591
26.00	.2579	.2568	.2557	.2546	.2535	.2524	.2513	.2502	.2491	.2481	.2470	.2459
27.00	.2448	.2438	.2427	.2417	.2406	.2396	.2385	.2375	.2365	.2355	.2344	.2334
28.00	.2324	.2314	.2304	.2294	.2284	.2274	.2264	.2254	.2245	.2235	.2225	.2216
29.00	.2206	.2197	.2187	.2178	.2168	.2159	.2149	.2140	.2131	.2122	.2112	.2103
30.00	.2094	.2085	.2076	.2067	.2058	.2049	.2040	.2031	.2023	.2014	.2005	.1996
31.00	.1988	.1979	.1971	.1962	.1953	.1945	.1937	.1928	.1920	.1912	.1903	.1895
32.00	.1887	.1879	.1870	.1862	.1854	.1846	.1838	.1830	.1822	.1814	.1807	.1799
33.00	.1791	.1783	.1775	.1768	.1760	.1752	.1745	.1737	.1730	.1722	.1715	.1707
34.00	.1700	.1693	.1685	.1678	.1671	.1663	.1656	.1649	.1642	.1635	.1628	.1621
35.00	.1614	.1607	.1600	.1593	.1586	.1579	.1572	.1565	.1559	.1552	.1545	.1538
36.00	.1532	.1525	.1518	.1512	.1505	.1499	.1492	.1486	.1479	.1473	.1467	.1460
37.00	.1454	.1448	.1441	.1435	.1429	.1423	.1417	.1410	.1404	.1398	.1392	.1386
38.00	.1380	.1374	.1368	.1362	.1356	.1350	.1345	.1339	.1333	.1327	.1321	.1316
39.00	.1310	.1304	.1299	.1293	.1287	.1282	.1276	.1271	.1265	.1260	.1254	.1249
40.00	.1244	.1238	.1233	.1227	.1222	.1217	.1212	.1206	.1201	.1196	.1191	.1185
41.00	.1180	.1175	.1170	.1165	.1160	.1155	.1150	.1145	.1140	.1135	.1130	.1125
42.00	.1120	.1116	.1111	.1106	.1101	.1096	.1092	.1087	.1082	.1077	.1073	.1068
43.00	.1064	.1059	.1054	.1050	.1045	.1041	.1036	.1032	.1027	.1023	.1018	.1014
44.00	.1010	.1005	.1001	.0996	.0992	.0988	.0984	.0979	.0975	.0971	.0967	.0962
45.00	.0958	.0954	.0950	.0946	.0942	.0938	.0934	.0930	.0926	.0922	.0918	.0914
46.00	.0910	.0906	.0902	.0898	.0894	.0890	.0886	.0882	.0879	.0875	.0871	.0867
47.00	.0863	.0860	.0856	.0852	.0849	.0845	.0841	.0838	.0834	.0830	.0827	.0823
48.00	.0820	.0816	.0812	.0809	.0805	.0802	.0798	.0795	.0792	.0788	.0785	.07[illegible]1

I - 125

HALF-LIFF 60.20 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9962	.9924	.9886	.9848	.9810	.9772	.9735	.9698	.9660	.9623	.9587
4.00	.9550	.9513	.9477	.9441	.9404	.9368	.9332	.9297	.9261	.9226	.9190	.9155
8.00	.9120	.9085	.9050	.9016	.8981	.8947	.8912	.8878	.8844	.8810	.8777	.8743
12.00	.8710	.8676	.8643	.8610	.8577	.8544	.8511	.8479	.8446	.8414	.8382	.8349
16.00	.8317	.8286	.8254	.8222	.8191	.8159	.8128	.8097	.8066	.8035	.8004	.7974
20.00	.7943	.7913	.7882	.7852	.7822	.7792	.7762	.7733	.7703	.7673	.7644	.7615
24.00	.7586	.7557	.7528	.7499	.7470	.7441	.7413	.7384	.7356	.7328	.7300	.7272
28.00	.7244	.7216	.7189	.7161	.7134	.7106	.7079	.7052	.7025	.6998	.6971	.6945
32.00	.6918	.6892	.6865	.6839	.6813	.6787	.6761	.6735	.6709	.6683	.6658	.6632
36.00	.6607	.6581	.6556	.6531	.6506	.6481	.6456	.6432	.6407	.6382	.6358	.6334

HALF-LIFE 60.20 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
40.00	.6309	.6285	.6261	.6237	.6213	.6189	.6166	.6142	.6119	.6095	.6072	.6048
44.00	.6025	.6002	.5979	.5956	.5933	.5911	.5888	.5866	.5843	.5821	.5798	.5776
48.00	.5754	.5732	.5710	.5688	.5666	.5645	.5623	.5602	.5580	.5559	.5537	.5516
52.00	.5495	.5474	.5453	.5432	.5411	.5391	.5370	.5349	.5329	.5309	.5288	.5268
56.00	.5248	.5228	.5208	.5188	.5168	.5148	.5128	.5109	.5089	.5070	.5050	.5031
60.00	.5012	.4992	.4973	.4954	.4935	.4916	.4897	.4879	.4860	.4841	.4823	.4804
64.00	.4786	.4768	.4749	.4731	.4713	.4695	.4677	.4659	.4641	.4623	.4606	.4588
68.00	.4571	.4553	.4536	.4518	.4501	.4484	.4466	.4449	.4432	.4415	.4398	.4382
72.00	.4365	.4348	.4331	.4315	.4298	.4282	.4265	.4249	.4233	.4217	.4200	.4184
76.00	.4168	.4152	.4136	.4121	.4105	.4089	.4073	.4058	.4042	.4027	.4011	.3996
80.00	.3981	.3965	.3950	.3935	.3920	.3905	.3890	.3875	.3860	.3846	.3831	.3816
84.00	.3802	.3787	.3772	.3758	.3744	.3729	.3715	.3701	.3687	.3672	.3658	.3644
88.00	.3630	.3617	.3603	.3589	.3575	.3561	.3548	.3534	.3521	.3507	.3494	.3480
92.00	.3467	.3454	.3440	.3427	.3414	.3401	.3388	.3375	.3362	.3349	.3336	.3324
96.00	.3311	.3298	.3286	.3273	.3261	.3248	.3236	.3223	.3211	.3199	.3186	.3174
100.00	.3162	.3150	.3138	.3126	.3114	.3102	.3090	.3078	.3066	.3055	.3043	.3031
104.00	.3020	.3008	.2997	.2985	.2974	.2962	.2951	.2940	.2928	.2917	.2906	.2895
108.00	.2884	.2873	.2862	.2851	.2840	.2829	.2818	.2807	.2796	.2786	.2775	.2764
112.00	.2754	.2743	.2733	.2722	.2712	.2702	.2691	.2681	.2671	.2660	.2650	.2640
116.00	.2630	.2620	.2610	.2600	.2590	.2580	.2570	.2560	.2550	.2541	.2531	.2521
120.00	.2512	.2502	.2492	.2483	.2473	.2464	.2454	.2445	.2436	.2426	.2417	.2408
124.00	.2398	.2389	.2380	.2371	.2362	.2353	.2344	.2335	.2326	.2317	.2308	.2299
128.00	.2291	.2282	.2273	.2264	.2256	.2247	.2238	.2230	.2221	.2213	.2204	.2196
132.00	.2187	.2179	.2171	.2162	.2154	.2146	.2138	.2129	.2121	.2113	.2105	.2097
136.00	.2089	.2081	.2073	.2065	.2057	.2049	.2041	.2034	.2026	.2018	.2010	.2003
140.00	.1995	.1987	.1980	.1972	.1965	.1957	.1950	.1942	.1935	.1927	.1920	.1912
144.00	.1905	.1898	.1891	.1883	.1876	.1869	.1862	.1855	.1848	.1840	.1833	.1826
148.00	.1819	.1812	.1805	.1799	.1792	.1785	.1778	.1771	.1764	.1758	.1751	.1744
152.00	.1737	.1731	.1724	.1718	.1711	.1704	.1698	.1691	.1685	.1679	.1672	.1666
156.00	.1659	.1653	.1647	.1640	.1634	.1628	.1622	.1615	.1609	.1603	.1597	.1591
160.00	.1585	.1579	.1572	.1566	.1560	.1554	.1549	.1543	.1537	.1531	.1525	.1519
164.00	.1513	.1507	.1502	.1496	.1490	.1485	.1479	.1473	.1468	.1462	.1456	.1451
168.00	.1445	.1440	.1434	.1429	.1423	.1418	.1412	.1407	.1401	.1396	.1391	.1385
172.00	.1380	.1375	.1370	.1364	.1359	.1354	.1349	.1344	.1338	.1333	.1328	.1323
176.00	.1318	.1313	.1308	.1303	.1298	.1293	.1288	.1283	.1278	.1273	.1268	.1264
180.00	.1259	.1254	.1249	.1244	.1239	.1235	.1230	.1225	.1221	.1216	.1211	.1207
184.00	.1202	.1197	.1193	.1188	.1184	.1179	.1175	.1170	.1166	.1161	.1157	.1152
188.00	.1148	.1144	.1139	.1135	.1130	.1126	.1122	.1117	.1113	.1109	.1105	.1100
192.00	.1096	.1092	.1088	.1084	.1080	.1075	.1071	.1067	.1063	.1059	.1055	.1051
196.00	.1047	.1043	.1039	.1035	.1031	.1027	.1023	.1019	.1015	.1011	.1007	.1004
200.00	.1000	.0996	.0992	.0988	.0985	.0981	.0977	.0973	.0970	.0966	.0962	.0958
204.00	.0955	.0951	.0947	.0944	.0940	.0937	.0933	.0929	.0926	.0922	.0919	.0915
208.00	.0912	.0908	.0905	.0901	.0898	.0894	.0891	.0888	.0884	.0881	.0877	.0874
212.00	.0871	.0867	.0864	.0861	.0857	.0854	.0851	.0848	.0844	.0841	.0838	.0835
216.00	.0832	.0828	.0825	.0822	.0819	.0816	.0813	.0810	.0806	.0803	.0800	.0797

I - 131

HALF-LIFE 8.05 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9964	.9929	.9893	.9858	.9822	.9787	.9752	.9717	.9682	.9648	.9613
.50	.9579	.9544	.9510	.9476	.9442	.9408	.9375	.9341	.9308	.9274	.9241	.9208
1.00	.9175	.9142	.9109	.9077	.9044	.9012	.8980	.8947	.8915	.8883	.8852	.8820
1.50	.8788	.8757	.8726	.8694	.8663	.8632	.8601	.8570	.8540	.8509	.8479	.8448
2.00	.8418	.8388	.8358	.8328	.8298	.8268	.8239	.8209	.8180	.8151	.8121	.8092
2.50	.8063	.8034	.8006	.7977	.7948	.7920	.7892	.7863	.7835	[illegible]	.7779	.7751
3.00	.7724	.7696	.7668	.7641	.7613	.7586	.7559	.7532	.7505	.7478	.7451	.7425
3.50	.7398	.7372	.7345	.7319	.7293	.7267	.7241	.7215	.7189	.7163	.7137	.7112
4.00	.7086	.7061	.7036	.7010	.6985	.6960	.6935	.6911	.6886	.6861	.6837	.6812
4.50	.6788	.6763	.6739	.6715	.6691	.6667	.6643	.6619	.6596	.6572	.6548	.6525
5.00	.6502	.6478	.6455	.6432	.6409	.6386	.6363	.6340	.6318	.6295	.6273	.6250
5.50	.6228	.6205	.6183	.6161	.6139	.6117	.6095	.6073	.6051	.6030	.6008	.5987
6.00	.5965	.5944	.5923	.5901	.5880	.5859	.5838	.5817	.5796	.5776	.5755	.5734
6.50	.5714	.5693	.5673	.5653	.5632	.5612	.5592	.5572	.5552	.5532	.5513	.5493
7.00	.5473	.5454	.5434	.5415	.5395	.5376	.5357	.5337	.5318	.5299	.5280	.5261
7.50	.5242	.5224	.5205	.5186	.5168	.5149	.5131	.5112	.5094	.5076	.5058	.5040
8.00	.5022	.5004	.4986	.4968	.4950	.4932	.4915	.4897	.4879	.4862	.4845	.4827
8.50	.4810	.4793	.4776	.4758	.4741	.4724	.4708	.4691	.4674	.4657	.4640	.4624
9.00	.4607	.4591	.4574	.4558	.4542	.4525	.4509	.4493	.4477	.4461	.4445	.4429
9.50	.4413	.4397	.4382	.4366	.4350	.4335	.4319	.4304	.4288	.4273	.4258	.4242
10.00	.4227	.4212	.4197	.4182	.4167	.4152	.4137	.4122	.4108	.4093	.4078	.4064
10.50	.4049	.4035	.4020	.4006	.3991	.3977	.3963	.3949	.3934	.3920	.3906	.3892
11.00	.3878	.3865	.3851	.3837	.3823	.3809	.3796	.3782	.3769	.3755	.3742	.3728
11.50	.3715	.3702	.3688	.3675	.3662	.3649	.3636	.3623	.3610	.3597	.3584	.3571
12.00	.3558	.3546	.3533	.3520	.3508	.3495	.3483	.3470	.3458	.3445	.3433	.3421
12.50	.3408	.3396	.3384	.3372	.3360	.3348	.3336	.3324	.3312	.3300	.3288	.3277
13.00	.3265	.3253	.3242	.3230	.3218	.3207	.3195	.3184	.3172	.3161	.3150	.3139
13.50	.3127	.3116	.3105	.3094	.3083	.3072	.3061	.3050	.3039	.3028	.3017	.3006
14.00	.2996	.2985	.2974	.2963	.2953	.2942	.2932	.2921	.2911	.2900	.2890	.2880
14.50	.2869	.2859	.2849	.2839	.2828	.2818	.2808	.2798	.2788	.2778	.2768	.2758
15.00	.2748	.2739	.2729	.2719	.2709	.2700	.2690	.2680	.2671	.2661	.2652	.2642
15.50	.2633	.2623	.2614	.2604	.2595	.2586	.2576	.2567	.2558	.2549	.2540	.2531
16.00	.2522	.2513	.2504	.2495	.2486	.2477	.2468	.2459	.2450	.2441	.2433	.2424
16.50	.2415	.2407	.2398	.2390	.2381	.2372	.2364	.2355	.2347	.2339	.2330	.2322
17.00	.2314	.2305	.2297	.2289	.2281	.2272	.2264	.2256	.2248	.2240	.2232	.2224
17.50	.2216	.2208	.2200	.2192	.2185	.2177	.2169	.2161	.2153	.2146	.2138	.2130
18.00	.2123	.2115	.2108	.2100	.2092	.2085	.2077	.2070	.2063	.2055	.2048	.2041
18.50	.2033	.2026	.2019	.2011	.2004	.1997	.1990	.1983	.1976	.1969	.1962	.1955
19.00	.1948	.1941	.1934	.1927	.1920	.1913	.1906	.1899	.1892	.1886	.1879	.1872
19.50	.1866	.1859	.1852	.1846	.1839	.1832	.1826	.1819	.1813	.1806	.1800	.1793
20.00	.1787	.1780	.1774	.1768	.1761	.1755	.1749	.1743	.1736	.1730	.1724	.1718
20.50	.1712	.1705	.1699	.1693	.1687	.1681	.1675	.1669	.1663	.1657	.1651	.1645
21.00	.1639	.1634	.1628	.1622	.1616	.1610	.1605	.1599	.1593	.1587	.1582	.1576
21.50	.1570	.1565	.1559	.1554	.1548	.1542	.1537	.1531	.1526	.1520	.1515	.1510
22.00	.1504	.1499	.1493	.1488	.1483	.1477	.1472	.1467	.1462	.1456	.1451	.1446
22.50	.1441	.1436	.1431	.1425	.1420	.1415	.1410	.1405	.1400	.1395	.1390	.1385
23.00	.1380	.1375	.1370	.1365	.1360	.1356	.1351	.1346	.1341	.1336	.1331	.1327
23.50	.1322	.1317	.1313	.1308	.1303	.1298	.1294	.1289	.1285	.1280	.1275	.1271
24.00	.1266	.1262	.1257	.1253	.1248	.1244	.1239	.1235	.1230	.1226	.1222	.1217
24.50	.1213	.1209	.1204	.1200	.1196	.1191	.1187	.1183	.1179	.1174	.1170	.1166
25.00	.1162	.1158	.1153	.1149	.1145	.1141	.1137	.1133	.1129	.1125	.1121	.1117
25.50	.1113	.1109	.1105	.1101	.1097	.1093	.1089	.1085	.1081	.1077	.1074	.1070
26.00	.1066	.1062	.1058	.1055	.1051	.1047	.1043	.1039	.1036	.1032	.1028	.1025
26.50	.1021	.1017	.1014	.1010	.1006	.1003	.0999	.0996	.0992	.0989	.0985	.0982
27.00	.0978	.0974	.0971	.0968	.0964	.0961	.0957	.0954	.0950	.0947	.0944	.0940

I - 131

HALF-LIFE 8.05 DAYS CALCULATION INTERVAL 1.0 HOURS

	HOURS											
DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
27.50	.0937	.0933	.0930	.0927	.0923	.0920	.0917	.0914	.0910	.0907	.0904	.0901
28.00	.0897	.0894	.0891	.0888	.0885	.0881	.0878	.0875	.0872	.0869	.0866	.0863
28.50	.0859	.0856	.0853	.0850	.0847	.0844	.0841	.0838	.0835	.0832	.0829	.0826
29.00	.0823	.0820	.0817	.0814	.0812	.0809	.0806	.0803	.0800	.0797	.0794	.0791
29.50	.0789	.0786	.0783	.0780	.0777	.0775	.0772	.0769	.0766	.0764	.0761	.0758
30.00	.0755	.0753	.0750	.0747	.0745	.0742	.0739	.0737	.0734	.0731	.0729	.0726
30.50	.0724	.0721	.0718	.0716	.0713	.0711	.0708	.0706	.0703	.0701	.0698	.0696
31.00	.0693	.0691	.0688	.0686	.0683	.0681	.0678	.0676	.0673	.0671	.0669	.0666
31.50	.0664	.0661	.0659	.0657	.0654	.0652	.0650	.0647	.0645	.0643	.0640	.0638
32.00	.0636	.0634	.0631	.0629	.0627	.0625	.0622	.0620	.0618	.0616	.0613	.0611
32.50	.0609	.0607	.0605	.0603	.0600	.0598	.0596	.0594	.0592	.0590	.0588	.0585
33.00	.0583	.0581	.0579	.0577	.0575	.0573	.0571	.0569	.0567	.0565	.0563	.0561
33.50	.0559	.0557	.0555	.0553	.0551	.0549	.0547	.0545	.0543	.0541	.0539	.0537
34.00	.0535	.0533	.0531	.0530	.0528	.0526	.0524	.0522	.0520	.0518	.0516	.0515
34.50	.0513	.0511	.0509	.0507	.0505	.0504	.0502	.0500	.0498	.0496	.0495	.0493
35.00	.0491	.0489	.0488	.0486	.0484	.0482	.0481	.0479	.0477	.0476	.0474	.0472
35.50	.0470	.0469	.0467	.0465	.0464	.0462	.0460	.0459	.0457	.0455	.0454	.0452
36.00	.0451	.0449	.0447	.0446	.0444	.0443	.0441	.0439	.0438	.0436	.0435	.0433
36.50	.0432	.0430	.0429	.0427	.0425	.0424	.0422	.0421	.0419	.0418	.0416	.0415
37.00	.0413	.0412	.0410	.0409	.0408	.0406	.0405	.0403	.0402	.0400	.0399	.0397
37.50	.0396	.0395	.0393	.0392	.0390	.0389	.0388	.0386	.0385	.0383	.0382	.0381
38.00	.0379	.0378	.0377	.0375	.0374	.0373	.0371	.0370	.0369	.0367	.0366	.0365
38.50	.0363	.0362	.0361	.0359	.0358	.0357	.0356	.0354	.0353	.0352	.0351	.0349
39.00	.0348	.0347	.0346	.0344	.0343	.0342	.0341	.0339	.0338	.0337	.0336	.0335
39.50	.0333	.0332	.0331	.0330	.0329	.0327	.0326	.0325	.0324	.0323	.0322	.0320
40.00	.0319	.0318	.0317	.0316	.0315	.0314	.0313	.0311	.0310	.0309	.0308	.0307
40.50	.0306	.0305	.0304	.0303	.0301	.0300	.0299	.0298	.0297	.0296	.0295	.0294
41.00	.0293	.0292	.0291	.0290	.0289	.0288	.0287	.0286	.0285	.0284	.0283	.0282
41.50	.0281	.0280	.0279	.0278	.0277	.0276	.0275	.0274	.0273	.0272	.0271	.0270
42.00	.0269	.0268	.0267	.0266	.0265	.0264	.0263	.0262	.0261	.0260	.0259	.0258
42.50	.0257	.0257	.0256	.0255	.0254	.0253	.0252	.0251	.0250	.0249	.0248	.0247
43.00	.0247	.0246	.0245	.0244	.0243	.0242	.0241	.0240	.0240	.0239	.0238	.0237
43.50	.0236	.0235	.0235	.0234	.0233	.0232	.0231	.0230	.0230	.0229	.0228	.0227
44.00	.0226	.0225	.0225	.0224	.0223	.0222	.0221	.0221	.0220	.0219	.0218	.0218
44.50	.0217	.0216	.0215	.0214	.0214	.0213	.0212	.0211	.0211	.0210	.0209	.0208
45.00	.0208	.0207	.0206	.0205	.0205	.0204	.0203	.0202	.0202	.0201	.0200	.0200
45.50	.0199	.0198	.0197	.0197	.0196	.0195	.0195	.0194	.0193	.0193	.0192	.0191
46.00	.0190	.0190	.0189	.0188	.0188	.0187	.0186	.0186	.0185	.0184	.0184	.0183
46.50	.0182	.0182	.0181	.0180	.0180	.0179	.0179	.0178	.0177	.0177	.0176	.0175
47.00	.0175	.0174	.0174	.0173	.0172	.0172	.0171	.0170	.0170	.0169	.0169	.0168
47.50	.0167	.0167	.0166	.0166	.0165	.0164	.0164	.0163	.0163	.0162	.0161	.0161
48.00	.0160	.0160	.0159	.0159	.0158	.0157	.0157	.0156	.0156	.0155	.0155	.0154
48.50	.0154	.0153	.0152	.0152	.0151	.0151	.0150	.0150	.0149	.0149	.0148	.0148
49.00	.0147	.0147	.0146	.0146	.0145	.0144	.0144	.0143	.0143	.0142	.0142	.0141
49.50	.0141	.0140	.0140	.0139	.0139	.0138	.0138	.0137	.0137	.0136	.0136	.0135
50.00	.0135	.0134	.0134	.0134	.0133	.0133	.0132	.0132	.0131	.0131	.0130	.0130
50.50	.0129	.0129	.0128	.0128	.0127	.0127	.0127	.0126	.0126	.0125	.0125	.0124
51.00	.0124	.0123	.0123	.0123	.0122	.0122	.0121	.0121	.0120	.0120	.0119	.0119
51.50	.0119	.0118	.0118	.0117	.0117	.0117	.0116	.0116	.0115	.0115	.0114	.0114
52.00	.0114	.0113	.0113	.0112	.0112	.0112	.0111	.0111	.0110	.0110	.0110	.0109
52.50	.0109	.0108	.0108	.0108	.0107	.0107	.0107	.0106	.0106	.0105	.0105	.0105
53.00	.0104	.0104	.0104	.0103	.0103	.0102	.0102	.0102	.0101	.0101	.0101	.0100
53.50	.0100	.0099	.0099	.0099	.0098	.0098	.0098	.0097	.0097	.0097	.0096	.0096
54.00	.0096	.0095	.0095	.0095	.0094	.0094	.0094	.0093	.0093	.0093	.0092	.0092
54.50	.0092	.0091	.0091	.0091	.0090	.0090	.0090	.0089	.0089	.0089	.0088	.0088

I - 131

HALF-LIFE 8.05 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
55.00	.0088	.0087	.0087	.0087	.0087	.0086	.0086	.0086	.0085	.0085	.0085	.0084
55.50	.0084	.0084	.0083	.0083	.0083	.0083	.0082	.0082	.0082	.0081	.0081	.0081
56.00	.0081	.0080	.0080	.0080	.0079	.0079	.0079	.0079	.0078	.0078	.0078	.0077

I - 132

HALF-LIFE 2.26 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9949	.9898	.9848	.9798	.9748	.9698	.9649	.9599	.9550	.9502	.9453
.20	.9405	.9357	.9309	.9262	.9215	.9168	.9121	.9074	.9028	.8982	.8936	.8891
.40	.8845	.8800	.8755	.8711	.8666	.8622	.8578	.8535	.8491	.8448	.8405	.8362
.60	.8319	.8277	.8235	.8193	.8151	.8109	.8068	.8027	.7986	.7945	.7905	.7864
.80	.7824	.7784	.7745	.7705	.7666	.7627	.7588	.7549	.7511	.7472	.7434	.7396
1.00	.7359	.7321	.7284	.7247	.7210	.7173	.7136	.7100	.7064	.7028	.6992	.6956
1.20	.6921	.6886	.6850	.6816	.6781	.6746	.6712	.6678	.6644	.6610	.6576	.6542
1.40	.6509	.6476	.6443	.6410	.6377	.6345	.6312	.6280	.6248	.6216	.6185	.6153
1.60	.6122	.6091	.6060	.6029	.5998	.5967	.5937	.5907	.5877	.5847	.5817	.5787
1.80	.5758	.5728	.5699	.5670	.5641	.5612	.5584	.5555	.5527	.5499	.5471	.5443
2.00	.5415	.5387	.5360	.5333	.5305	.5278	.5251	.5225	.5198	.5172	.5145	.5119
2.20	.5093	.5067	.5041	.5015	.4990	.4964	.4939	.4914	.4889	.4864	.4839	.4814
2.40	.4790	.4765	.4741	.4717	.4693	.4669	.4645	.4621	.4598	.4574	.4551	.4528
2.60	.4505	.4482	.4459	.4436	.4414	.4391	.4369	.4347	.4324	.4302	.4280	.4259
2.80	.4237	.4215	.4194	.4172	.4151	.4130	.4109	.4088	.4067	.4046	.4026	.4005
3.00	.3985	.3964	.3944	.3924	.3904	.3884	.3864	.3845	.3825	.3806	.3786	.3767
3.20	.3748	.3729	.3710	.3691	.3672	.3653	.3634	.3616	.3598	.3579	.3561	.3543
3.40	.3525	.3507	.3489	.3471	.3453	.3436	.3418	.3401	.3383	.3366	.3349	.3332
3.60	.3315	.3298	.3281	.3265	.3248	.3231	.3215	.3198	.3182	.3166	.3150	.3134
3.80	.3118	.3102	.3086	.3070	.3055	.3039	.3024	.3008	.2993	.2978	.2962	.2947
4.00	.2932	.2917	.2902	.2888	.2873	.2858	.2844	.2829	.2815	.2800	.2786	.2772
4.20	.2758	.2744	.2730	.2716	.2702	.2688	.2675	.2661	.2647	.2634	.2620	.2607
4.40	.2594	.2581	.2567	.2554	.2541	.2528	.2515	.2503	.2490	.2477	.2464	.2452
4.60	.2439	.2427	.2415	.2402	.2390	.2378	.2366	.2354	.2342	.2330	.2318	.2306
4.80	.2294	.2283	.2271	.2259	.2248	.2236	.2225	.2214	.2202	.2191	.2180	.2169
5.00	.2158	.2147	.2136	.2125	.2114	.2103	.2093	.2082	.2071	.2061	.2050	.2040
5.20	.2029	.2019	.2009	.1999	.1988	.1978	.1968	.1958	.1948	.1938	.1928	.1918
5.40	.1909	.1899	.1889	.1880	.1870	.1860	.1851	.1842	.1832	.1823	.1814	.1804
5.60	.1795	.1786	.1777	.1768	.1759	.1750	.1741	.1732	.1723	.1714	.1706	.1697
5.80	.1688	.1680	.1671	.1663	.1654	.1646	.1637	.1629	.1621	.1612	.1604	.1596
6.00	.1588	.1580	.1572	.1564	.1556	.1548	.1540	.1532	.1524	.1516	.1509	.1501
6.20	.1493	.1486	.1478	.1471	.1463	.1456	.1448	.1441	.1434	.1426	.1419	.1412
6.40	.1405	.1397	.1390	.1383	.1376	.1369	.1362	.1355	.1348	.1341	.1335	.1328
6.60	.1321	.1314	.1308	.1301	.1294	.1288	.1281	.1275	.1268	.1262	.1255	.1249
6.80	.1242	.1236	.1230	.1223	.1217	.1211	.1205	.1199	.1193	.1186	.1180	.1174
7.00	.1168	.1162	.1157	.1151	.1145	.1139	.1133	.1127	.1122	.1116	.1110	.1105
7.20	.1099	.1093	.1088	.1082	.1077	.1071	.1066	.1060	.1055	.1050	.1044	.1039
7.40	.1034	.1028	.1023	.1018	.1013	.1007	.1002	.0997	.0992	.0987	.0982	.0977
7.60	.0972	.0967	.0962	.0957	.0952	.0948	.0943	.0938	.0933	.0928	.0924	.0919
7.80	.0914	.0910	.0905	.0900	.0896	.0891	.0887	.0882	.0878	.0873	.0869	.0864
8.00	.0860	.0855	.0851	.0847	.0842	.0838	.0834	.0830	.0825	.0821	.0817	.0813
8.20	.0809	.0805	.0800	.0796	.0792	.0788	.0784	.0780	.0776	.0772	.0768	.0764

I - 133

HALF-LIFE 20.30 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9831	.9664	.9501	.9340	.9182	.9026	.8874	.8723	.8576	.8431	.8288
6.00	.8148	.8010	.7874	.7741	.7610	.7481	.7354	.7230	.7107	.6987	.6869	.6753
12.00	.6638	.6526	.6415	.6307	.6200	.6095	.5992	.5890	.5791	.5693	.5596	.5502
18.00	.5409	.5317	.5227	.5138	.5051	.4966	.4882	.4799	.4718	.4638	.4560	.4482
24.00	.4407	.4332	.4259	.4187	.4116	.4046	.3978	.3910	.3844	.3779	.3715	.3652
30.00	.3590	.3530	.3470	.3411	.3353	.3297	.3241	.3186	.3132	.3079	.3027	.2976
36.00	.2925	.2876	.2827	.2779	.2732	.2686	.2640	.2596	.2552	.2509	.2466	.2424
42.00	.2383	.2343	.2303	.2264	.2226	.2188	.2151	.2115	.2079	.2044	.2009	.1975
48.00	.1942	.1909	.1877	.1845	.1814	.1783	.1753	.1723	.1694	.1665	.1637	.1609
54.00	.1582	.1555	.1529	.1503	.1478	.1453	.1428	.1404	.1380	.1357	.1334	.1311
60.00	.1289	.1267	.1246	.1225	.1204	.1184	.1164	.1144	.1124	.1105	.1087	.1068
66.00	.1050	.1032	.1015	.0998	.0981	.0964	.0948	.0932	.0916	.0901	.0885	.0870
72.00	.0856	.0841	.0827	.0813	.0799	.0786	.0772	.0759	.0746	.0734	.0721	.0709

I - 135

HALF-LIFE 6.68 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	MINUTES 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9914	.9829	.9744	.9660	.9577	.9494	.9413	.9332	.9251	.9172	.9093
1.00	.9014	.8937	.8860	.8784	.8708	.8633	.8559	.8485	.8412	.8339	.8268	.8196
2.00	.8126	.8056	.7987	.7918	.7850	.7782	.7715	.7649	.7583	.7517	.7453	.7389
3.00	.7325	.7262	.7199	.7137	.7076	.7015	.6955	.6895	.6835	.6777	.6718	.6660
4.00	.6603	.6546	.6490	.6434	.6379	.6324	.6269	.6215	.6162	.6109	.6056	.6004
5.00	.5952	.5901	.5850	.5800	.5750	.5700	.5651	.5603	.5554	.5507	.5459	.5412
6.00	.5366	.5319	.5274	.5228	.5183	.5139	.5094	.5050	.5007	.4964	.4921	.4879
7.00	.4837	.4795	.4754	.4713	.4672	.4632	.4592	.4553	.4513	.4475	.4436	.4398
8.00	.4360	.4322	.4285	.4248	.4212	.4175	.4140	.4104	.4069	.4034	.3999	.3964
9.00	.3930	.3896	.3863	.3830	.3797	.3764	.3732	.3699	.3668	.3636	.3605	.3574
10.00	.3543	.3512	.3482	.3452	.3422	.3393	.3364	.3335	.3306	.3278	.3249	.3221
11.00	.3194	.3166	.3139	.3112	.3085	.3059	.3032	.3006	.2980	.2955	.2929	.2904
12.00	.2879	.2854	.2830	.2805	.2781	.2757	.2733	.2710	.2686	.2663	.2640	.2618
13.00	.2595	.2573	.2551	.2529	.2507	.2485	.2464	.2443	.2422	.2401	.2380	.2360
14.00	.2339	.2319	.2299	.2279	.2260	.2240	.2221	.2202	.2183	.2164	.2146	.2127
15.00	.2109	.2091	.2073	.2055	.2037	.2020	.2002	.1985	.1968	.1951	.1934	.1917
16.00	.1901	.1885	.1868	.1852	.1836	.1821	.1805	.1789	.1774	.1759	.1743	.1728
17.00	.1714	.1699	.1684	.1670	.1655	.1641	.1627	.1613	.1599	.1585	.1572	.1558
18.00	.1545	.1531	.1518	.1505	.1492	.1479	.1467	.1454	.1441	.1429	.1417	.1405
19.00	.1392	.1380	.1369	.1357	.1345	.1334	.1322	.1311	.1299	.1288	.1277	.1266
20.00	.1255	.1244	.1234	.1223	.1213	.1202	.1192	.1181	.1171	.1161	.1151	.1141
21.00	.1131	.1122	.1112	.1103	.1093	.1084	.1074	.1065	.1056	.1047	.1038	.1029
22.00	.1020	.1011	.1002	.0994	.0985	.0977	.0968	.0960	.0952	.0944	.0935	.0927
23.00	.0919	.0912	.0904	.0896	.0888	.0881	.0873	.0865	.0858	.0851	.0843	.0836
24.00	.0829	.0822	.0815	.0808	.0801	.0794	.0787	.0780	.0773	.0767	.0760	.0754
25.00	.0747	.0741	.0734	.0728	.0722	.0716	.0709	.0703	.0697	.0691	.0685	.0679
26.00	.0673	.0668	.0662	.0656	.0651	.0645	.0639	.0634	.0628	.0623	.0618	.0612
27.00	.0607	.0602	.0597	.0592	.0586	.0581	.0576	.0571	.0567	.0562	.0557	.0552
28.00	.0547	.0543	.0538	.0533	.0529	.0524	.0520	.0515	.0511	.0506	.0502	.0498
29.00	.0493	.0489	.0485	.0481	.0477	.0472	.0468	.0464	.0460	.0456	.0452	.0449
30.00	.0445	.0441	.0437	.0433	.0430	.0426	.0422	.0419	.0415	.0411	.0408	.0404
31.00	.0401	.0397	.0394	.0391	.0387	.0384	.0381	.0377	.0374	.0371	.0368	.0364
32.00	.0361	.0358	.0355	.0352	.0349	.0346	.0343	.0340	.0337	.0334	.0331	.0329
33.00	.0326	.0323	.0320	.0317	.0315	.0312	.0309	.0307	.0304	.0301	.0299	.0296
34.00	.0294	.0291	.0289	.0286	.0284	.0281	.0279	.0276	.0274	.0272	.0269	.0267

I - 135

HALF-LIFE 6.68 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	MINUTES 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
35.00	.0265	.0262	.0260	.0258	.0256	.0253	.0251	.0249	.0247	.0245	.0243	.0241
36.00	.0239	.0237	.0235	.0232	.0230	.0229	.0227	.0225	.0223	.0221	.0219	.0217
37.00	.0215	.0213	.0211	.0210	.0208	.0206	.0204	.0202	.0201	.0199	.0197	.0196
38.00	.0194	.0192	.0191	.0189	.0187	.0186	.0184	.0183	.0181	.0179	.0178	.0176
39.00	.0175	.0173	.0172	.0170	.0169	.0167	.0166	.0165	.0163	.0162	.0160	.0159
40.00	.0158	.0156	.0155	.0154	.0152	.0151	.0150	.0148	.0147	.0146	.0145	.0143
41.00	.0142	.0141	.0140	.0138	.0137	.0136	.0135	.0134	.0133	.0131	.0130	.0129
42.00	.0128	.0127	.0126	.0125	.0124	.0123	.0122	.0121	.0119	.0118	.0117	.0116
43.00	.0115	.0114	.0113	.0112	.0111	.0111	.0110	.0109	.0108	.0107	.0106	.0105
44.00	.0104	.0103	.0102	.0101	.0100	.0100	.0099	.0098	.0097	.0096	.0095	.0095
45.00	.0094	.0093	.0092	.0091	.0091	.0090	.0089	.0088	.0088	.0087	.0086	.0085
46.00	.0085	.0084	.0083	.0082	.0082	.0081	.0080	.0080	.0079	.0078	.0078	.0077

XE - 133

HALF-LIFE 5.27 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9945	.9891	.9837	.9783	.9730	.9677	.9624	.9571	.9519	.9467	.9415
.50	.9364	.9312	.9261	.9211	.9160	.9110	.9061	.9011	.8962	.8913	.8864	.8816
1.00	.8768	.8720	.8672	.8625	.8577	.8531	.8484	.8438	.8391	.8346	.8300	.8255
1.50	.8210	.8165	.8120	.8076	.8032	.7988	.7944	.7901	.7857	.7814	.7772	.7729
2.00	.7687	.7645	.7603	.7562	.7520	.7479	.7438	.7398	.7357	.7317	.7277	.7237
2.50	.7198	.7158	.7119	.7080	.7042	.7003	.6965	.6927	.6889	.6851	.6814	.6777
3.00	.6740	.6703	.6666	.6630	.6593	.6557	.6522	.6486	.6451	.6415	.6380	.6345
3.50	.6311	.6276	.6242	.6208	.6174	.6140	.6107	.6073	.6040	.6007	.5974	.5941
4.00	.5909	.5877	.5845	.5813	.5781	.5749	.5718	.5687	.5656	.5625	.5594	.5563
4.50	.5533	.5503	.5473	.5443	.5413	.5383	.5354	.5325	.5296	.5267	.5238	.5209
5.00	.5181	.5152	.5124	.5096	.5068	.5041	.5013	.4986	.4959	.4931	.4904	.4878
5.50	.4851	.4824	.4798	.4772	.4746	.4720	.4694	.4668	.4643	.4618	.4592	.4567
6.00	.4542	.4517	.4493	.4468	.4444	.4419	.4395	.4371	.4347	.4324	.4300	.4277
6.50	.4253	.4230	.4207	.4184	.4161	.4138	.4116	.4093	.4071	.4048	.4026	.4004
7.00	.3982	.3961	.3939	.3918	.3896	.3875	.3854	.3833	.3812	.3791	.3770	.3749
7.50	.3729	.3709	.3688	.3668	.3648	.3628	.3608	.3589	.3569	.3550	.3530	.3511
8.00	.3492	.3473	.3454	.3435	.3416	.3397	.3379	.3360	.3342	.3324	.3305	.3287
8.50	.3269	.3252	.3234	.3216	.3199	.3181	.3164	.3146	.3129	.3112	.3095	.3078
9.00	.3061	.3045	.3028	.3011	.2995	.2979	.2962	.2946	.2930	.2914	.2898	.2882
9.50	.2866	.2851	.2835	.2820	.2804	.2789	.2774	.2759	.2744	.2729	.2714	.2699
10.00	.2684	.2669	.2655	.2640	.2626	.2611	.2597	.2583	.2569	.2555	.2541	.2527
10.50	.2513	.2499	.2486	.2472	.2459	.2445	.2432	.2419	.2405	.2392	.2379	.2366
11.00	.2353	.2340	.2328	.2315	.2302	.2290	.2277	.2265	.2252	.2240	.2228	.2216
11.50	.2203	.2191	.2179	.2168	.2156	.2144	.2132	.2121	.2109	.2097	.2086	.2075
12.00	.2063	.2052	.2041	.2030	.2018	.2007	.1996	.1986	.1975	.1964	.1953	.1943
12.50	.1932	.1921	.1911	.1900	.1890	.1880	.1869	.1859	.1849	.1839	.1829	.1819
13.00	.1809	.1799	.1789	.1779	.1770	.1760	.1750	.1741	.1731	.1722	.1712	.1703
13.50	.1694	.1685	.1675	.1666	.1657	.1648	.1639	.1630	.1621	.1612	.1603	.1595
14.00	.1586	.1577	.1569	.1560	.1552	.1543	.1535	.1526	.1518	.1510	.1501	.1493
14.50	.1485	.1477	.1469	.1461	.1453	.1445	.1437	.1429	.1421	.1414	.1406	.1398
15.00	.1391	.1383	.1375	.1368	.1360	.1353	.1346	.1338	.1331	.1324	.1316	.1309
15.50	.1302	.1295	.1288	.1281	.1274	.1267	.1260	.1253	.1246	.1239	.1233	.1226
16.00	.1219	.1212	.1206	.1199	.1193	.1186	.1180	.1173	.1167	.1160	.1154	.1148
16.50	.1142	.1135	.1129	.1123	.1117	.1111	.1105	.1099	.1093	.1087	.1081	.1075
17.00	.1069	.1063	.1057	.1051	.1046	.1040	.1034	.1029	.1023	.1017	.1012	.1006

XE - 133

HALF-LIFE 5.27 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
17.50	.1001	.0995	.0990	.0985	.0979	.0974	.0968	.0963	.0958	.0953	.0947	.0942
18.00	.0937	.0932	.0927	.0922	.0917	.0912	.0907	.0902	.0897	.0892	.0887	.0882
18.50	.0878	.0873	.0868	.0863	.0858	.0854	.0849	.0844	.0840	.0835	.0831	.0826
19.00	.0822	.0817	.0813	.0808	.0804	.0799	.0795	.0791	.0786	.0782	.0778	.0774

CS - 132

HALF-LIFE 6.59 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9956	.9913	.9869	.9826	.9783	.9740	.9698	.9655	.9613	.9571	.9529
.50	.9488	.9446	.9405	.9364	.9323	.9282	.9241	.9201	.9161	.9121	.9081	.9041
1.00	.9002	.8962	.8923	.8884	.8845	.8807	.8768	.8730	.8691	.8653	.8616	.8578
1.50	.8540	.8503	.8466	.8429	.8392	.8355	.8319	.8282	.8246	.8210	.8174	.8138
2.00	.8103	.8067	.8032	.7997	.7962	.7927	.7893	.7858	.7824	.7790	.7755	.7722
2.50	.7688	.7654	.7621	.7587	.7554	.7521	.7488	.7456	.7423	.7390	.7358	.7326
3.00	.7294	.7262	.7230	.7199	.7167	.7136	.7105	.7074	.7043	.7012	.6981	.6951
3.50	.6920	.6890	.6860	.6830	.6800	.6770	.6741	.6711	.6682	.6653	.6623	.6595
4.00	.6566	.6537	.6508	.6480	.6452	.6423	.6395	.6367	.6339	.6312	.6284	.6257
4.50	.6229	.6202	.6175	.6148	.6121	.6094	.6068	.6041	.6015	.5988	.5962	.5936
5.00	.5910	.5884	.5859	.5833	.5807	.5782	.5757	.5732	.5707	.5682	.5657	.5632
5.50	.5607	.5583	.5558	.5534	.5510	.5486	.5462	.5438	.5414	.5391	.5367	.5343
6.00	.5320	.5297	.5274	.5251	.5228	.5205	.5182	.5159	.5137	.5114	.5092	.5070
6.50	.5048	.5025	.5004	.4982	.4960	.4938	.4917	.4895	.4874	.4852	.4831	.4810
7.00	.4789	.4768	.4747	.4726	.4706	.4685	.4665	.4644	.4624	.4604	.4584	.4564
7.50	.4544	.4524	.4504	.4484	.4465	.4445	.4426	.4406	.4387	.4368	.4349	.4330
8.00	.4311	.4292	.4273	.4255	.4236	.4217	.4199	.4181	.4162	.4144	.4126	.4108
8.50	.4090	.4072	.4054	.4037	.4019	.4001	.3984	.3966	.3949	.3932	.3915	.3897
9.00	.3880	.3863	.3847	.3830	.3813	.3796	.3780	.3763	.3747	.3730	.3714	.3698
9.50	.3682	.3666	.3650	.3634	.3618	.3602	.3586	.3570	.3555	.3539	.3524	.3508
10.00	.3493	.3478	.3463	.3447	.3432	.3417	.3402	.3387	.3373	.3358	.3343	.3329
10.50	.3314	.3300	.3285	.3271	.3256	.3242	.3228	.3214	.3200	.3186	.3172	.3158
11.00	.3144	.3131	.3117	.3103	.3090	.3076	.3063	.3049	.3036	.3023	.3009	.2996
11.50	.2983	.2970	.2957	.2944	.2931	.2919	.2906	.2893	.2880	.2868	.2855	.2843
12.00	.2830	.2818	.2806	.2793	.2781	.2769	.2757	.2745	.2733	.2721	.2709	.2697
12.50	.2685	.2674	.2662	.2650	.2639	.2627	.2616	.2604	.2593	.2582	.2570	.2559
13.00	.2548	.2537	.2526	.2515	.2504	.2493	.2482	.2471	.2460	.2449	.2439	.2428
13.50	.2417	.2407	.2396	.2386	.2375	.2365	.2355	.2344	.2334	.2324	.2314	.2303
14.00	.2293	.2283	.2273	.2263	.2254	.2244	.2234	.2224	.2214	.2205	.2195	.2185
14.50	.2176	.2166	.2157	.2147	.2138	.2129	.2119	.2110	.2101	.2092	.2083	.2074
15.00	.2064	.2055	.2046	.2037	.2029	.2020	.2011	.2002	.1993	.1985	.1976	.1967
15.50	.1959	.1950	.1942	.1933	.1925	.1916	.1908	.1900	.1891	.1883	.1875	.1866
16.00	.1858	.1850	.1842	.1834	.1826	.1818	.1810	.1802	.1794	.1786	.1779	.1771
16.50	.1763	.1755	.1748	.1740	.1732	.1725	.1717	.1710	.1702	.1695	.1688	.1680
17.00	.1673	.1665	.1658	.1651	.1644	.1637	.1629	.1622	.1615	.1608	.1601	.1594
17.50	.1587	.1580	.1573	.1566	.1560	.1553	.1546	.1539	.1532	.1526	.1519	.1512
18.00	.1506	.1499	.1493	.1486	.1480	.1473	.1467	.1460	.1454	.1448	.1441	.1435
18.50	.1429	.1422	.1416	.1410	.1404	.1398	.1392	.1385	.1379	.1373	.1367	.1361
19.00	.1355	.1350	.1344	.1338	.1332	.1326	.1320	.1314	.1309	.1303	.1297	.1292
19.50	.1286	.1280	.1275	.1269	.1264	.1258	.1253	.1247	.1242	.1236	.1231	.1225
20.00	.1220	.1215	.1209	.1204	.1199	.1194	.1188	.1183	.1178	.1173	.1168	.1163
20.50	.1158	.1153	.1148	.1142	.1137	.1133	.1128	.1123	.1118	.1113	.1108	.1103
21.00	.1098	.1094	.1089	.1084	.1079	.1075	.1070	.1065	.1060	.1056	.1051	.1047
21.50	.1042	.1037	.1033	.1028	.1024	.1019	.1015	.1011	.1006	.1002	.0997	.0993
22.00	.0989	.0984	.0980	.0976	.0971	.0967	.0963	.0959	.0955	.0950	.0946	.0942

CS - 132

HALF-LIFE 6.59 DAYS CALCULATION INTERVAL 1.0 HOURS

DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
	HOURS											
22.50	.0938	.0934	.0930	.0926	.0922	.0918	.0914	.0910	.0906	.0902	.0898	.0894
23.00	.0890	.0886	.0882	.0878	.0874	.0871	.0867	.0863	.0859	.0856	.0852	.0848
23.50	.0844	.0841	.0837	.0833	.0830	.0826	.0822	.0819	.0815	.0812	.0808	.0805
24.00	.0801	.0798	.0794	.0791	.0787	.0784	.0780	.0777	.0773	.0770	.0767	.0763

CS - 134

HALF-LIFE 2.05 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
	DAYS									
0.0	1.0000	.9954	.9908	.9862	.9816	.9771	.9726	.9681	.9636	.9592
50.0	.9547	.9503	.9459	.9416	.9372	.9329	.9286	.9243	.9200	.9158
100.0	.9115	.9073	.9031	.8989	.8948	.8907	.8865	.8824	.8784	.8743
150.0	.8703	.8662	.8622	.8583	.8543	.8503	.8464	.8425	.8386	.8347
200.0	.8309	.8270	.8232	.8194	.8156	.8119	.8081	.8044	.8007	.7970
250.0	.7933	.7896	.7860	.7823	.7787	.7751	.7715	.7680	.7644	.7609
300.0	.7574	.7539	.7504	.7469	.7435	.7400	.7366	.7332	.7298	.7264
350.0	.7231	.7197	.7164	.7131	.7098	.7065	.7033	.7000	.6968	.6936
400.0	.6904	.6872	.6840	.6808	.6777	.6746	.6714	.6683	.6652	.6622
450.0	.6591	.6561	.6530	.6500	.6470	.6440	.6410	.6381	.6351	.6322
500.0	.6293	.6264	.6235	.6206	.6177	.6149	.6120	.6092	.6064	.6036
550.0	.6008	.5980	.5953	.5925	.5898	.5870	.5843	.5816	.5789	.5763
600.0	.5736	.5710	.5683	.5657	.5631	.5605	.5579	.5553	.5527	.5502
650.0	.5476	.5451	.5426	.5401	.5376	.5351	.5326	.5302	.5277	.5253
700.0	.5229	.5204	.5180	.5156	.5133	.5109	.5085	.5062	.5038	.5015
750.0	.4992	.4969	.4946	.4923	.4900	.4878	.4855	.4833	.4810	.4788
800.0	.4766	.4744	.4722	.4700	.4678	.4657	.4635	.4614	.4593	.4571
850.0	.4550	.4529	.4508	.4487	.4467	.4446	.4426	.4405	.4385	.4364
900.0	.4344	.4324	.4304	.4284	.4265	.4245	.4225	.4206	.4186	.4167
950.0	.4148	.4128	.4109	.4090	.4072	.4053	.4034	.4015	.3997	.3978
1000.0	.3960	.3942	.3923	.3905	.3887	.3869	.3851	.3834	.3816	.3798
1050.0	.3781	.3763	.3746	.3729	.3711	.3694	.3677	.3660	.3643	.3626
1100.0	.3610	.3593	.3576	.3560	.3543	.3527	.3511	.3494	.3478	.3462
1150.0	.3446	.3430	.3414	.3399	.3383	.3367	.3352	.3336	.3321	.3305
1200.0	.3290	.3275	.3260	.3245	.3230	.3215	.3200	.3185	.3171	.3156
1250.0	.3141	.3127	.3112	.3098	.3084	.3069	.3055	.3041	.3027	.3013
1300.0	.2999	.2985	.2971	.2958	.2944	.2930	.2917	.2903	.2890	.2877
1350.0	.2863	.2850	.2837	.2824	.2811	.2798	.2785	.2772	.2759	.2746
1400.0	.2734	.2721	.2709	.2696	.2684	.2671	.2659	.2647	.2634	.2622
1450.0	.2610	.2598	.2586	.2574	.2562	.2550	.2539	.2527	.2515	.2503
1500.0	.2492	.2480	.2469	.2458	.2446	.2435	.2424	.2412	.2401	.2390
1550.0	.2379	.2368	.2357	.2346	.2335	.2325	.2314	.2303	.2293	.2282
1600.0	.2271	.2261	.2250	.2240	.2230	.2219	.2209	.2199	.2189	.2179
1650.0	.2169	.2159	.2149	.2139	.2129	.2119	.2109	.2099	.2090	.2080
1700.0	.2070	.2061	.2051	.2042	.2032	.2023	.2014	.2004	.1995	.1986
1750.0	.1977	.1968	.1959	.1949	.1940	.1932	.1923	.1914	.1905	.1896
1800.0	.1887	.1879	.1870	.1861	.1853	.1844	.1836	.1827	.1819	.1810
1850.0	.1802	.1794	.1785	.1777	.1769	.1761	.1752	.1744	.1736	.1728
1900.0	.1720	.1712	.1704	.1697	.1689	.1681	.1673	.1665	.1658	.1650
1950.0	.1642	.1635	.1627	.1620	.1612	.1605	.1597	.1590	.1583	.1575
2000.0	.1568	.1561	.1554	.1546	.1539	.1532	.1525	.1518	.1511	.1504
2050.0	.1497	.1490	.1483	.1476	.1470	.1463	.1456	.1449	.1443	.1436
2100.0	.1429	.1423	.1416	.1410	.1403	.1397	.1390	.1384	.1377	.1371
2150.0	.1365	.1358	.1352	.1346	.1340	.1333	.1327	.1321	.1315	.1309
2200.0	.1303	.1297	.1291	.1285	.1279	.1273	.1267	.1261	.1256	.1250

CS - 134

HALF-LIFE 2.05 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
2250.0	.1244	.1238	.1232	.1227	.1221	.1215	.1210	.1204	.1199	.1193
2300.0	.1188	.1182	.1177	.1171	.1166	.1160	.1155	.1150	.1144	.1139
2350.0	.1134	.1129	.1123	.1118	.1113	.1108	.1103	.1098	.1093	.1088
2400.0	.1083	.1078	.1073	.1068	.1063	.1058	.1053	.1048	.1043	.1038
2450.0	.1034	.1029	.1024	.1019	.1015	.1010	.1005	.1001	.0996	.0991
2500.0	.0987	.0982	.0978	.0973	.0969	.0964	.0960	.0955	.0951	.0946
2550.0	.0942	.0938	.0933	.0929	.0925	.0921	.0916	.0912	.0908	.0904
2600.0	.0899	.0895	.0891	.0887	.0883	.0879	.0875	.0871	.0867	.0863
2650.0	.0859	.0855	.0851	.0847	.0843	.0839	.0835	.0831	.0828	.0824
2700.0	.0820	.0816	.0812	.0809	.0805	.0801	.0797	.0794	.0790	.0786

CS - 137

HALF-LIFE 30.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9772	.9548	.9330	.9117	.8909	.8706	.8507	.8312	.8123
10.0	.7937	.7756	.7579	.7405	.7236	.7071	.6910	.6752	.6598	.6447
20.0	.6300	.6156	.6015	.5878	.5743	.5612	.5484	.5359	.5236	.5117
30.0	.5000	.4886	.4774	.4665	.4559	.4454	.4353	.4253	.4156	.4061
40.0	.3969	.3878	.3789	.3703	.3618	.3536	.3455	.3376	.3299	.3223
50.0	.3150	.3078	.3008	.2939	.2872	.2806	.2742	.2679	.2618	.2558
60.0	.2500	.2443	.2387	.2333	.2279	.2227	.217[illegible]	.2127	.2078	.2031
70.0	.1984	.1939	.1895	.1851	.1809	.1768	.1727	.1688	.1649	.1612
80.0	.1575	.1539	.1504	.1469	.1436	.1403	.1371	.1340	.1309	.1279

BA - 133

HALF-LIFE 7.20 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
0.0	1.0000	.9974	.9947	.9921	.9895	.9869	.9843	.9817	.9791	.9765
100.0	.9740	.9714	.9688	.9663	.9637	.9612	.9587	.9562	.9536	.9511
200.0	.9486	.9461	.9436	.9411	.9387	.9362	.9337	.9313	.9288	.9264
300.0	.9239	.9215	.9191	.9166	.9142	.9118	.9094	.9070	.9046	.9022
400.0	.8999	.8975	.8951	.8928	.8904	.8881	.8857	.8834	.8811	.8788
500.0	.8764	.8741	.8718	.8695	.8673	.8650	.8627	.8604	.8581	.8559
600.0	.8536	.8514	.8491	.8469	.8447	.8425	.8402	.8380	.8358	.8336
700.0	.8314	.8292	.8270	.8249	.8227	.8205	.8184	.8162	.8141	.8119
800.0	.8098	.8076	.8055	.8034	.8013	.7992	.7971	.7950	.7929	.7908
900.0	.7887	.7866	.7845	.7825	.7804	.7784	.7763	.7743	.7722	.7702
1000.0	.7682	.7661	.7641	.7621	.7601	.7581	.7561	.7541	.7521	.7501
1100.0	.7482	.7462	.7442	.7423	.7403	.7384	.7364	.7345	.7325	.7306
1200.0	.7287	.7268	.7249	.7229	.7210	.7191	.7172	.7154	.7135	.7116
1300.0	.7097	.7079	.7060	.7041	.7023	.7004	.6986	.6967	.6949	.6931
1400.0	.6912	.6894	.6876	.6858	.6840	.6822	.6804	.6786	.6768	.6750
1500.0	.6733	.6715	.6697	.6679	.6662	.6644	.6627	.6609	.6592	.6575
1600.0	.6557	.6540	.6523	.6506	.6488	.6471	.6454	.6437	.6420	.6403
1700.0	.6387	.6370	.6353	.6336	.6320	.6303	.6286	.6270	.6253	.6237
1800.0	.6220	.6204	.6188	.6171	.6155	.6139	.6123	.6107	.6090	.6074
1900.0	.6058	.6042	.6027	.6011	.5995	.5979	.5963	.5948	.5932	.5916
2000.0	.5901	.5885	.5870	.5854	.5839	.5823	.5808	.5793	.5778	.5762
2100.0	.5747	.5732	.5717	.5702	.5687	.5672	.5657	.5642	.5627	.5612
2200.0	.5598	.5583	.5568	.5553	.5539	.5524	.5510	.5495	.5481	.5466
2300.0	.5452	.5437	.5423	.5409	.5395	.5380	.5366	.5352	.5338	.5324
2400.0	.5310	.5296	.5282	.5268	.5254	.5240	.5227	.5213	.5199	.5185

HALF-LIFE 7.20 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
2500.0	.5172	.5158	.5144	.5131	.5117	.5104	.5090	.5077	.5064	.5050
2600.0	.5037	.5024	.5011	.4997	.4984	.4971	.4958	.4945	.4932	.4919
2700.0	.4906	.4893	.4880	.4867	.4854	.4842	.4829	.4816	.4804	.4791
2800.0	.4778	.4766	.4753	.4741	.4728	.4716	.4703	.4691	.4678	.4666
2900.0	.4654	.4642	.4629	.4617	.4605	.4593	.4581	.4569	.4557	.4545
3000.0	.4533	.4521	.4509	.4497	.4485	.4473	.4462	.4450	.4438	.4426
3100.0	.4415	.4403	.4391	.4380	.4368	.4357	.4345	.4334	.4323	.4311
3200.0	.4300	.4288	.4277	.4266	.4255	.4243	.4232	.4221	.4210	.4199
3300.0	.4188	.4177	.4166	.4155	.4144	.4133	.4122	.4111	.4100	.4090
3400.0	.4079	.4068	.4057	.4047	.4036	.4025	.4015	.4004	.3994	.3983
3500.0	.3973	.3962	.3952	.3941	.3931	.3921	.3910	.3900	.3890	.3879
3600.0	.3869	.3859	.3849	.3839	.3829	.3819	.3809	.3798	.3788	.3779
3700.0	.3769	.3759	.3749	.3739	.3729	.3719	.3709	.3700	.3690	.3680
3800.0	.3670	.3661	.3651	.3642	.3632	.3622	.3613	.3603	.3594	.3584
3900.0	.3575	.3566	.3556	.3547	.3537	.3528	.3519	.3510	.3500	.3491
4000.0	.3482	.3473	.3464	.3454	.3445	.3436	.3427	.3418	.3409	.3400
4100.0	.3391	.3382	.3373	.3364	.3356	.3347	.3338	.3329	.3320	.3312
4200.0	.3303	.3294	.3286	.3277	.3268	.3260	.3251	.3243	.3234	.3225
4300.0	.3217	.3208	.3200	.3192	.3183	.3175	.3166	.3158	.3150	.3142
4400.0	.3133	.3125	.3117	.3109	.3100	.3092	.3084	.3076	.3068	.3060
4500.0	.3052	.3044	.3036	.3028	.3020	.3012	.3004	.2996	.2988	.2980
4600.0	.2972	.2964	.2957	.2949	.2941	.2933	.2926	.2918	.2910	.2903
4700.0	.2895	.2887	.2880	.2872	.2864	.2857	.2849	.2842	.2834	.2827
4800.0	.2820	.2812	.2805	.2797	.2790	.2783	.2775	.2768	.2761	.2753
4900.0	.2746	.2739	.2732	.2724	.2717	.2710	.2703	.2696	.2689	.2682
5000.0	.2675	.2668	.2661	.2654	.2647	.2640	.2633	.2626	.2619	.2612
5100.0	.2605	.2598	.2591	.2584	.2578	.2571	.2564	.2557	.2551	.2544
5200.0	.2537	.2531	.2524	.2517	.2511	.2504	.2497	.2491	.2484	.2478
5300.0	.2471	.2465	.2458	.2452	.2445	.2439	.2432	.2426	.2420	.2413
5400.0	.2407	.2400	.2394	.2388	.2382	.2375	.2369	.2363	.2357	.2350
5500.0	.2344	.2338	.2332	.2326	.2320	.2313	.2307	.2301	.2295	.2289
5600.0	.2283	.2277	.2271	.2265	.2259	.2253	.2247	.2241	.2235	.2230
5700.0	.2224	.2218	.2212	.2206	.2200	.2195	.2189	.2183	.2177	.2172
5800.0	.2166	.2160	.2154	.2149	.2143	.2137	.2132	.2126	.2121	.2115
5900.0	.2109	.2104	.2098	.2093	.2087	.2082	.2076	.2071	.2065	.2060
6000.0	.2055	.2049	.2044	.2038	.2033	.2028	.2022	.2017	.2012	.2006
6100.0	.2001	.1996	.1991	.1985	.1980	.1975	.1970	.1964	.1959	.1954
6200.0	.1949	.1944	.1939	.1934	.1929	.1923	.1918	.1913	.1908	.1903
6300.0	.1898	.1893	.1888	.1883	.1878	.1873	.1868	.1864	.1859	.1854
6400.0	.1849	.1844	.1839	.1834	.1829	.1825	.1820	.1815	.1810	.1805
6500.0	.1801	.1796	.1791	.1787	.1782	.1777	.1772	.1768	.1763	.1758
6600.0	.1754	.1749	.1745	.1740	.1735	.1731	.1726	.1722	.1717	.1713
6700.0	.1708	.1704	.1699	.1695	.1690	.1686	.1681	.1677	.1673	.1668
6800.0	.1664	.1659	.1655	.1651	.1646	.1642	.1638	.1633	.1629	.1625
6900.0	.1620	.1616	.1612	.1608	.1603	.1599	.1595	.1591	.1587	.1582
7000.0	.1578	.1574	.1570	.1566	.1562	.1558	.1553	.1549	.1545	.1541
7100.0	.1537	.1533	.1529	.1525	.1521	.1517	.1513	.1509	.1505	.1501
7200.0	.1497	.1493	.1489	.1485	.1481	.1478	.1474	.1470	.1466	.1462
7300.0	.1458	.1454	.1450	.1447	.1443	.1439	.1435	.1431	.1428	.1424
7400.0	.1420	.1416	.1413	.1409	.1405	.1402	.1398	.1394	.1391	.1387
7500.0	.1383	.1380	.1376	.1372	.1369	.1365	.1362	.1358	.1354	.1351
7600.0	.1347	.1344	.1340	.1337	.1333	.1330	.1326	.1323	.1319	.1316
7700.0	.1312	.1309	.1305	.1302	.1298	.1295	.1292	.1288	.1285	.1281
7800.0	.1278	.1275	.1271	.1268	.1265	.1261	.1258	.1255	.1251	.1248
7900.0	.1245	.1241	.1238	.1235	.1232	.1228	.1225	.1222	.1219	.1216

BA - 133

HALF-LIFE 7.20 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	DAYS 40.0	50.0	60.0	70.0	80.0	90.0
8000.0	.1212	.1209	.1206	.1203	.1200	.1196	.1193	.1190	.1187	.1184
8100.0	.1181	.1178	.1175	.1171	.1168	.1165	.1162	.1159	.1156	.1153
8200.0	.1150	.1147	.1144	.1141	.1138	.1135	.1132	.1129	.1126	.1123
8300.0	.1120	.1117	.1114	.1111	.1108	.1105	.1103	.1100	.1097	.1094
8400.0	.1091	.1088	.1085	.1082	.1079	.1077	.1074	.1071	.1068	.1065
8500.0	.1063	.1060	.1057	.1054	.1051	.1049	.1046	.1043	.1040	.1038
8600.0	.1035	.1032	.1029	.1027	.1024	.1021	.1019	.1016	.1013	.1011
8700.0	.1008	.1005	.1003	.1000	.0997	.0995	.0992	.0990	.0987	.0984
8800.0	.0982	.0979	.0977	.0974	.0971	.0969	.0966	.0964	.0961	.0959
8900.0	.0956	.0954	.0951	.0949	.0946	.0944	.0941	.0939	.0936	.0934
9000.0	.0931	.0929	.0926	.0924	.0921	.0919	.0917	.0914	.0912	.0909
9100.0	.0907	.0905	.0902	.0900	.0898	.0895	.0893	.0890	.0888	.0886
9200.0	.0883	.0881	.0879	.0876	.0874	.0872	.0870	.0867	.0865	.0863
9300.0	.0860	.0858	.0856	.0854	.0851	.0849	.0847	.0845	.0842	.0840
9400.0	.0838	.0836	.0834	.0831	.0829	.0827	.0825	.0823	.0821	.0818
9500.0	.0816	.0814	.0812	.0810	.0808	.0806	.0803	.0801	.0799	.0797

BA - 133

HALF-LIFE 7.20 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	YEARS 4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9082	.8249	.7492	.6804	.6179	.5612	.5097	.4629	.4204
10.0	.3819	.3468	.3150	.2861	.2598	.2360	.2143	.1946	.1768	.1606
20.0	.1458	.1324	.1203	.1092	.0992	.0901	.0818	.0743	.0675	.0613

BA - 140

HALF-LIFE 12.80 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	0.0	2.0	4.0	6.0	8.0	HOURS 10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9955	.9910	.9866	.9821	.9777	.9733	.9689	.9645	.9602	.9559	.9516
1.00	.9473	.9430	.9388	.9345	.9303	.9262	.9220	.9178	.9137	.9096	.9055	.9014
2.00	.8974	.8933	.8893	.8853	.8813	.8773	.8734	.8695	.8655	.8616	.8578	.8539
3.00	.8501	.8462	.8424	.8386	.8348	.8311	.8273	.8236	.8199	.8162	.8125	.8089
4.00	.8052	.8016	.7980	.7944	.7908	.7873	.7837	.7802	.7767	.7732	.7697	.7662
5.00	.7628	.7594	.7559	.7525	.7492	.7458	.7424	.7391	.7358	.7324	.7291	.7259
6.00	.7226	.7193	.7161	.7129	.7097	.7065	.7033	.7001	.6970	.6938	.6907	.6876
7.00	.6845	.6814	.6784	.6753	.6723	.6692	.6662	.6632	.6602	.6573	.6543	.6514
8.00	.6484	.6455	.6426	.6397	.6368	.6340	.6311	.6283	.6254	.6226	.6198	.6170
9.00	.6142	.6115	.6087	.6060	.6033	.6005	.5978	.5951	.5925	.5898	.5871	.5845
10.00	.5819	.5792	.5766	.5740	.5715	.5689	.5663	.5638	.5612	.5587	.5562	.5537
11.00	.5512	.5487	.5462	.5438	.5413	.5389	.5365	.5341	.5316	.5293	.5269	.5245
12.00	.5221	.5198	.5174	.5151	.5128	.5105	.5082	.5059	.5036	.5014	.4991	.4969
13.00	.4946	.4924	.4902	.4880	.4858	.4836	.4814	.4792	.4771	.4749	.4728	.4707
14.00	.4685	.4664	.4643	.4622	.4602	.4581	.4560	.4540	.4519	.4499	.4479	.4459
15.00	.4438	.4418	.4399	.4379	.4359	.4339	.4320	.4300	.4281	.4262	.4243	.4223
16.00	.4204	.4186	.4167	.4148	.4129	.4111	.4092	.4074	.4055	.4037	.4019	.4001
17.00	.3983	.3965	.3947	.3929	.3912	.3894	.3876	.3859	.3842	.3824	.3807	.3790
18.00	.3773	.3756	.3739	.3722	.3705	.3689	.3672	.3656	.3639	.3623	.3606	.3590
19.00	.3574	.3558	.3542	.3526	.3510	.3494	.3479	.3463	.3447	.3432	.3416	.3401
20.00	.3386	.3370	.3355	.3340	.3325	.3310	.3295	.3280	.3266	.3251	.3236	.3222
21.00	.3207	.3193	.3178	.3164	.3150	.3136	.3122	.3107	.3093	.3080	.3066	.3052
22.00	.3038	.3024	.3011	.2997	.2984	.2970	.2957	.2944	.2930	.2917	.2904	.2891
23.00	.2878	.2865	.2852	.2839	.2826	.2814	.2801	.2788	.2776	.2763	.2751	.2739
24.00	.2726	.2714	.2702	.2690	.2677	.2665	.2653	.2641	.2630	.2618	.2606	.2594

BA - 140

HALF-LIFE 12.80 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
25.00	.2583	.2571	.2559	.2548	.2536	.2525	.2514	.2502	.2491	.2480	.2469	.2457
26.00	.2446	.2435	.2424	.2414	.2403	.2392	.2381	.2370	.2360	.2349	.2338	.2328
27.00	.2317	.2307	.2297	.2286	.2276	.2266	.2256	.2245	.2235	.2225	.2215	.2205
28.00	.2195	.2185	.2176	.2166	.2156	.2146	.2137	.2127	.2117	.2108	.2098	.2089
29.00	.2080	.2070	.2061	.2052	.2042	.2033	.2024	.2015	.2006	.1997	.1988	.1979
30.00	.1970	.1961	.1952	.1943	.1935	.1926	.1917	.1909	.1900	.1892	.1883	.1875
31.00	.1866	.1858	.1849	.1841	.1833	.1824	.1816	.1808	.1800	.1792	.1784	.1776
32.00	.1768	.1760	.1752	.1744	.1736	.1728	.1721	.1713	.1705	.1697	.1690	.1682
33.00	.1675	.1667	.1660	.1652	.1645	.1637	.1630	.1623	.1615	.1608	.1601	.1593
34.00	.1586	.1579	.1572	.1565	.1558	.1551	.1544	.1537	.1530	.1523	.1516	.1509
35.00	.1503	.1496	.1489	.1482	.1476	.1469	.1463	.1456	.1449	.1443	.1436	.1430
36.00	.1423	.1417	.1411	.1404	.1398	.1392	.1385	.1379	.1373	.1367	.1361	.1355
37.00	.1348	.1342	.1336	.1330	.1324	.1318	.1312	.1307	.1301	.1295	.1289	.1283
38.00	.1277	.1272	.1266	.1260	.1255	.1249	.1243	.1238	.1232	.1227	.1221	.1216
39.00	.1210	.1205	.1199	.1194	.1188	.1183	.1178	.1172	.1167	.1162	.1157	.1151
40.00	.1146	.1141	.1136	.1131	.1126	.1121	.1116	.1111	.1106	.1101	.1096	.1091
41.00	.1086	.1081	.1076	.1071	.1066	.1062	.1057	.1052	.1047	.1043	.1038	.1033
42.00	.1029	.1024	.1019	.1015	.1010	.1006	.1001	.0997	.0992	.0988	.0983	.0979
43.00	.0974	.0970	.0966	.0961	.0957	.0953	.0948	.0944	.0940	.0936	.0931	.0927
44.00	.0923	.0919	.0915	.0911	.0907	.0902	.0898	.0894	.0890	.0886	.0882	.0878
45.00	.0874	.0870	.0867	.0863	.0859	.0855	.0851	.0847	.0843	.0840	.0836	.0832
46.00	.0828	.0825	.0821	.0817	.0813	.0810	.0806	.0803	.0799	.0795	.0792	.0788
47.00	.0785	.0781	.0778	.0774	.0771	.0767	.0764	.0760	.0757	.0753	.0750	.0747
48.00	.0743	.0740	.0737	.0733	.0730	.0727	.0723	.0720	.0717	.0714	.0710	.0707
49.00	.0704	.0701	.0698	.0695	.0691	.0688	.0685	.0682	.0679	.0676	.0673	.0670
50.00	.0667	.0664	.0661	.0658	.0655	.0652	.0649	.0646	.0643	.0640	.0638	.0635
51.00	.0632	.0629	.0626	.0623	.0621	.0618	.0615	.0612	.0609	.0607	.0604	.0601
52.00	.0599	.0596	.0593	.0590	.0588	.0585	.0583	.0580	.0577	.0575	.0572	.0570
53.00	.0567	.0564	.0562	.0559	.0557	.0554	.0552	.0549	.0547	.0544	.0542	.0539
54.00	.0537	.0535	.0532	.0530	.0527	.0525	.0523	.0520	.0518	.0516	.0513	.0511
55.00	.0509	.0506	.0504	.0502	.0500	.0497	.0495	.0493	.0491	.0489	.0486	.0484
56.00	.0482	.0480	.0478	.0475	.0473	.0471	.0469	.0467	.0465	.0463	.0461	.0459
57.00	.0457	.0454	.0452	.0450	.0448	.0446	.0444	.0442	.0440	.0438	.0436	.0434
58.00	.0432	.0431	.0429	.0427	.0425	.0423	.0421	.0419	.0417	.0415	.0413	.0412
59.00	.0410	.0408	.0406	.0404	.0402	.0401	.0399	.0397	.0395	.0393	.0392	.0390
60.00	.0388	.0386	.0385	.0383	.0381	.0379	.0378	.0376	.0374	.0373	.0371	.0369
61.00	.0368	.0366	.0364	.0363	.0361	.0359	.0358	.0356	.0355	.0353	.0351	.0350
62.00	.0348	.0347	.0345	.0344	.0342	.0340	.0339	.0337	.0336	.0334	.0333	.0331
63.00	.0330	.0328	.0327	.0325	.0324	.0323	.0321	.0320	.0318	.0317	.0315	.0314
64.00	.0313	.0311	.0310	.0308	.0307	.0306	.0304	.0303	.0301	.0300	.0299	.0297
65.00	.0296	.0295	.0293	.0292	.0291	.0289	.0288	.0287	.0286	.0284	.0283	.0282
66.00	.0280	.0279	.0278	.0277	.0275	.0274	.0273	.0272	.0270	.0269	.0268	.0267
67.00	.0266	.0264	.0263	.0262	.0261	.0260	.0259	.0257	.0256	.0255	.0254	.0253
68.00	.0252	.0251	.0249	.0248	.0247	.0246	.0245	.0244	.0243	.0242	.0241	.0239
69.00	.0238	.0237	.0236	.0235	.0234	.0233	.0232	.0231	.0230	.0229	.0228	.0227
70.00	.0226	.0225	.0224	.0223	.0222	.0221	.0220	.0219	.0218	.0217	.0216	.0215
71.00	.0214	.0213	.0212	.0211	.0210	.0209	.0208	.0207	.0206	.0205	.0204	.0204
72.00	.0203	.0202	.0201	.0200	.0199	.0198	.0197	.0196	.0195	.0195	.0194	.0193
73.00	.0192	.0191	.0190	.0189	.0189	.0188	.0187	.0186	.0185	.0184	.0183	.0183
74.00	.0182	.0181	.0180	.0179	.0179	.0178	.0177	.0176	.0175	.0175	.0174	.0173
75.00	.0172	.0171	.0171	.0170	.0169	.0168	.0168	.0167	.0166	.0165	.0165	.0164
76.00	.0163	.0162	.0162	.0161	.0160	.0160	.0159	.0158	.0157	.0157	.0156	.0155
77.00	.0155	.0154	.0153	.0152	.0152	.0151	.0150	.0150	.0149	.0148	.0148	.0147
78.00	.0146	.0145	.0145	.0144	.0144	.0143	.0143	.0142	.0141	.0141	.0140	.0139
79.00	.0139	.0138	.0137	.0137	.0136	.0136	.0135	.0134	.0134	.0133	.0133	.0132

BA - 140

HALF-LIFE 12.80 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
					HOURS							
80.00	.0131	.0131	.0130	.0130	.0129	.0128	.0128	.0127	.0127	.0126	.0126	.0125
81.00	.0124	.0124	.0123	.0123	.0122	.0122	.0121	.0121	.0120	.0120	.0119	.0118
82.00	.0118	.0117	.0117	.0116	.0116	.0115	.0115	.0114	.0114	.0113	.0113	.0112
83.00	.0112	.0111	.0111	.0110	.0110	.0109	.0109	.0108	.0108	.0107	.0107	.0106
84.00	.0106	.0105	.0105	.0104	.0104	.0103	.0103	.0103	.0102	.0102	.0101	.0101
85.00	.0100	.0100	.0099	.0099	.0098	.0098	.0098	.0097	.0097	.0096	.0096	.0095
86.00	.0095	.0095	.0094	.0094	.0093	.0093	.0092	.0092	.0092	.0091	.0091	.0090
87.00	.0090	.0090	.0089	.0089	.0088	.0088	.0088	.0087	.0087	.0086	.0086	.0086
88.00	.0085	.0085	.0084	.0084	.0084	.0083	.0083	.0083	.0082	.0082	.0081	.0081
89.00	.0081	.0080	.0080	.0080	.0079	.0079	.0079	.0078	.0078	.0077	.0077	.0077
90.00	.0076	.0076	.0076	.0075	.0075	.0075	.0074	.0074	.0074	.0073	.0073	.0073
91.00	.0072	.0072	.0072	.0071	.0071	.0071	.0070	.0070	.0070	.0070	.0069	.0069
92.00	.0069	.0068	.0068	.0068	.0067	.0067	.0067	.0066	.0066	.0066	.0066	.0065
93.00	.0065	.0065	.0064	.0064	.0064	.0064	.0063	.0063	.0063	.0062	.0062	.0062
94.00	.0062	.0061	.0061	.0061	.0060	.0060	.0060	.0060	.0059	.0059	.0059	.0059
95.00	.0058	.0058	.0058	.0058	.0057	.0057	.0057	.0057	.0056	.0056	.0056	.0055
96.00	.0055	.0055	.0055	.0054	.0054	.0054	.0054	.0054	.0053	.0053	.0053	.0053
97.00	.0052	.0052	.0052	.0052	.0051	.0051	.0051	.0051	.0050	.0050	.0050	.0050
98.00	.0051	.0049	.0049	.0049	.0049	.0048	.0048	.0048	.0048	.0048	.0047	.0047
99.00	.0047	.0047	.0047	.0046	.0046	.0046	.0046	.0045	.0045	.0045	.0045	.0045
100.00	.00.4	.0044	.0044	.0044	.0044	.0043	.0043	.0043	.0043	.0043	.0043	.0042
101.00	.0042	.0042	.0042	.0042	.0041	.0041	.0041	.0041	.0041	.0040	.0040	.0040
102.00	.0040	.0040	.0040	.0039	.0039	.0039	.0039	.0039	.0039	.0038	.0038	.0038
103.00	.0038	.0038	.0037	.0037	.0037	.0037	.0037	.0037	.0036	.0036	.0036	.0036
104.00	.0036	.0036	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0034	.0034	.0034
105.00	.0034	.0034	.0034	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0032	.0032
106.00	.0032	.0032	.0032	.0032	.0032	.0031	.0031	.0031	.0031	.0031	.0031	.0031
107.00	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0029	.0029	.0029	.0029
108.00	.0029	.0029	.0029	.0028	.0028	.0028	.0028	.0028	.0028	.0028	.0028	.0027
109.00	.0027	.0027	.0027	.0027	.0027	.0027	.0027	.0026	.0026	.0026	.0026	.0026
110.00	.0026	.0026	.0026	.0026	.0025	.0025	.0025	.0025	.0025	.0025	.0025	.0025
111.00	.0025	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0023	.0023
112.00	.0023	.0023	.0023	.0023	.0023	.0023	.0023	.0023	.0022	.0022	.0022	.0022
113.00	.0022	.0022	.0022	.0022	.0022	.0022	.0021	.0021	.0021	.0021	.0021	.0021
114.00	.0021	.0021	.0021	.0021	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020
115.00	.0020	.0020	.0020	.0019	.0019	.0019	.0019	.0019	.0019	.0019	.0019	.0019
116.00	.0019	.0019	.0019	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018
117.00	.0018	.0018	.0018	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017
118.00	.0017	.0017	.0017	.0017	.0016	.0016	.0016	.0016	.0016	.0016	.0016	.0016
119.00	.0016	.0016	.0016	.0016	.0016	.0016	.0015	.0015	.0015	.0015	.0015	.0015
120.00	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0014	.0014	.0014
121.00	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014
122.00	.0014	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013
123.00	.0013	.0013	.0013	.0013	.0013	.0013	.0012	.0012	.0012	.0012	.0012	.0012
124.00	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012
125.00	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0011
126.00	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0011	.0010	.0010	.0010	.0010
127.00	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010

LA - 140

HALF-LIFE 40.22 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9914	.9829	.9745	.9661	.9578	.9496	.9415	.9334	.9254	.9174	.9096
6.00	.9018	.8940	.8864	.8788	.8712	.8637	.8563	.8490	.8417	.8345	.8273	.8202
12.00	.8132	.8062	.7993	.7924	.7856	.7789	.7722	.7656	.7590	.7525	.7460	.7396
18.00	.7333	.7270	.7208	.7146	.7084	.7024	.6963	.6904	.6844	.6786	.6728	.6670
24.00	.6613	.6556	.6500	.6444	.6389	.6334	.6279	.6225	.6172	.6119	.6067	.6015
30.00	.5963	.5912	.5861	.5811	.5761	.5712	.5663	.5614	.5566	.5518	.5471	.5424
36.00	.5377	.5331	.5285	.5240	.5195	.5150	.5106	.5062	.5019	.4976	.4933	.4891
42.00	.4849	.4807	.4766	.4725	.4685	.4644	.4605	.4565	.4526	.4487	.4449	.4410
48.00	.4373	.4335	.4298	.4261	.4224	.4188	.4152	.4117	.4081	.4046	.4012	.3977
54.00	.3943	.3909	.3876	.3842	.3809	.3777	.3744	.3712	.3680	.3649	.3618	.3586
60.00	.3556	.3525	.3495	.3465	.3435	.3406	.3377	.3348	.3319	.3290	.3262	.3234
66.00	.3206	.3179	.3152	.3125	.3098	.3071	.3045	.3019	.2993	.2967	.2942	.2916
72.00	.2891	.2867	.2842	.2818	.2793	.2769	.2746	.2722	.2699	.2676	.2653	.2630
78.00	.2607	.2585	.2563	.2541	.2519	.2497	.2476	.2455	.2434	.2413	.2392	.2372
84.00	.2351	.2331	.2311	.2291	.2272	.2252	.2233	.2214	.2195	.2176	.2157	.2139
90.00	.2120	.2102	.2084	.2066	.2048	.2031	.2013	.1996	.1979	.1962	.1945	.1929
96.00	.1912	.1896	.1879	.1863	.1847	.1831	.1816	.1800	.1785	.1769	.1754	.1739
102.00	.1724	.1709	.1695	.1680	.1666	.1651	.1637	.1623	.1609	.1595	.1582	.1568
108.00	.1555	.1541	.1528	.1515	.1502	.1489	.1476	.1464	.1451	.1439	.1426	.1414
114.00	.1402	.1390	.1378	.1366	.1355	.1343	.1331	.1320	.1309	.1297	.1286	.1275
120.00	.1264	.1253	.1243	.1232	.1221	.1211	.1201	.1190	.1180	.1170	.1160	.1150
126.00	.1140	.1130	.1121	.1111	.1101	.1092	.1083	.1073	.1064	.1055	.1046	.1037
132.00	.1028	.1019	.1011	.1002	.0993	.0985	.0976	.0968	.0960	.0951	.0943	.0935
138.00	.0927	.0919	.0911	.0903	.0896	.0888	.0880	.0873	.0865	.0858	.0851	.0843
144.00	.0836	.0829	.0822	.0815	.0808	.0801	.0794	.0787	.0780	.0774	.0767	.0760

CE - 141

HALF-LIFE 32.50 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	HOURS 0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
0.00	1.0000	.9947	.9894	.9841	.9789	.9737	.9685	.9634	.9582	.9531	.9481	.9430
3.00	.9380	.9330	.9281	.9231	.9182	.9133	.9085	.9037	.8989	.8941	.8893	.8846
6.00	.8799	.8752	.8706	.8659	.8613	.8567	.8522	.8476	.8431	.8387	.8342	.8298
9.00	.8253	.8210	.8166	.8123	.8079	.8036	.7994	.7951	.7909	.7867	.7825	.7783
12.00	.7742	.7701	.7660	.7619	.7579	.7538	.7498	.7458	.7419	.7379	.7340	.7301
15.00	.7262	.7223	.7185	.7147	.7109	.7071	.7033	.6996	.6959	.6922	.6885	.6848
18.00	.6812	.6776	.6740	.6704	.6668	.6633	.6598	.6562	.6528	.6493	.6458	.6424
21.00	.6390	.6356	.6322	.6288	.6255	.6222	.6189	.6156	.6123	.6090	.6058	.6026
24.00	.5994	.5962	.5930	.5899	.5867	.5836	.5805	.5774	.5743	.5713	.5683	.5652
27.00	.5622	.5592	.5563	.5533	.5504	.5474	.5445	.5416	.5388	.5359	.5330	.5302
30.00	.5274	.5246	.5218	.5190	.5163	.5135	.5108	.5081	.5054	.5027	.5000	.4973
33.00	.4947	.4921	.4894	.4868	.4843	.4817	.4791	.4766	.4740	.4715	.4690	.4665
36.00	.4640	.4616	.4591	.4567	.4542	.4518	.4494	.4470	.4447	.4423	.4399	.4376
39.00	.4353	.4330	.4307	.4284	.4261	.4238	.4216	.4193	.4171	.4149	.4127	.4105
42.00	.4083	.4061	.4040	.4018	.3997	.3976	.3954	.3933	.3912	.3892	.3871	.3850
45.00	.3830	.3810	.3789	.3769	.3749	.3729	.3709	.3690	.3670	.3650	.3631	.3612
48.00	.3593	.3573	.3554	.3536	.3517	.3498	.3479	.3461	.3443	.3424	.3406	.3388
51.00	.3370	.3352	.3334	.3316	.3299	.3281	.3264	.3246	.3229	.3212	.3195	.3178
54.00	.3161	.3144	.3127	.3111	.3094	.3078	.3061	.3045	.3029	.3013	.2997	.2981
57.00	.2965	.2949	.2934	.2918	.2903	.2887	.2872	.2856	.2841	.2826	.2811	.2796
60.00	.2781	.2767	.2752	.2737	.2723	.2708	.2694	.2679	.2665	.2651	.2637	.2623
63.00	.2609	.2595	.2581	.2568	.2554	.2540	.2527	.2513	.2500	.2487	.2473	.2460
66.00	.2447	.2434	.2421	.2408	.2396	.2383	.2370	.2358	.2345	.2333	.2320	.2308
69.00	.2296	.2283	.2271	.2259	.2247	.2235	.2223	.2211	.2200	.2188	.2176	.2165
72.00	.2153	.2142	.2130	.2119	.2108	.2097	.2085	.2074	.2063	.2052	.2041	.2031

CE - 141

HALF-LIFE 32.50 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	HOURS 0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
75.00	.2020	.2009	.1998	.1988	.1977	.1967	.1956	.1946	.1935	.1925	.1915	.1905
78.00	.1895	.1885	.1875	.1865	.1855	.1845	.1835	.1825	.1816	.1806	.1796	.1787
81.00	.1777	.1768	.1758	.1749	.1740	.1730	.1721	.1712	.1703	.1694	.1685	.1676
84.00	.1667	.1658	.1649	.1641	.1632	.1623	.1615	.1606	.1597	.1589	.1581	.1572
87.00	.1564	.1555	.1547	.1539	.1531	.1523	.1515	.1506	.1498	.1490	.1483	.1475
90.00	.1467	.1459	.1451	.1444	.1436	.1428	.1421	.1413	.1406	.1398	.1391	.1383
93.00	.1376	.1369	.1361	.1354	.1347	.1340	.1333	.1326	.1318	.1311	.1304	.1298
96.00	.1291	.1284	.1277	.1270	.1263	.1257	.1250	.1243	.1237	.1230	.1224	.1217
99.00	.1211	.1204	.1198	.1191	.1185	.1179	.1173	.1166	.1160	.1154	.1148	.1142
102.00	.1136	.1130	.1124	.1118	.1112	.1106	.1100	.1094	.1088	.1082	.1077	.1071
105.00	.1065	.1060	.1054	.1048	.1043	.1037	.1032	.1026	.1021	.1015	.1010	.1005
108.00	.0999	.0994	.0989	.0983	.0978	.0973	.0968	.0963	.0957	.0952	.0947	.0942
111.00	.0937	.0932	.0927	.0922	.0917	.0913	.0908	.0903	.0898	.0893	.0889	.0884
114.00	.0879	.0875	.0870	.0865	.0861	.0856	.0852	.0847	.0842	.0838	.0834	.0829
117.00	.0825	.0820	.0816	.0812	.0807	.0803	.0799	.0794	.0790	.0786	.0782	.0778
120.00	.0774	.0769	.0765	.0761	.0757	.0753	.0749	.0745	.0741	.0737	.0733	.0730
123.00	.0726	.0722	.0718	.0714	.0710	.0707	.0703	.0699	.0695	.0692	.0688	.0684
126.00	.0681	.0677	.0673	.0670	.0666	.0663	.0659	.0656	.0652	.0649	.0645	.0642
129.00	.0638	.0635	.0632	.0628	.0625	.0622	.0618	.0615	.0612	.0609	.0605	.0602
132.00	.0599	.0596	.0593	.0589	.0586	.0583	.0580	.0577	.0574	.0571	.0568	.0565
135.00	.0562	.0559	.0556	.0553	.0550	.0547	.0544	.0541	.0538	.0535	.0533	.0530
138.00	.0527	.0524	.0521	.0519	.0516	.0513	.0510	.0508	.0505	.0502	.0500	.0497
141.00	.0494	.0492	.0489	.0486	.0484	.0481	.0479	.0476	.0474	.0471	.0469	.0466
144.00	.0464	.0461	.0459	.0456	.0454	.0451	.0449	.0447	.0444	.0442	.0440	.0437
147.00	.0435	.0433	.0430	.0428	.0426	.0423	.0421	.0419	.0417	.0415	.0412	.0410
150.00	.0408	.0406	.0404	.0401	.0399	.0397	.0395	.0393	.0391	.0389	.0387	.0385
153.00	.0383	.0381	.0379	.0377	.0375	.0373	.0371	.0369	.0367	.0365	.0363	.0361
156.00	.0359	.0357	.0355	.0353	.0351	.0350	.0348	.0346	.0344	.0342	.0340	.0339
159.00	.0337	.0335	.0333	.0331	.0330	.0328	.0326	.0324	.0323	.0321	.0319	.0318
162.00	.0316	.0314	.0313	.0311	.0309	.0308	.0306	.0304	.0303	.0301	.0299	.0298
165.00	.0296	.0295	.0293	.0292	.0290	.0288	.0287	.0285	.0284	.0282	.0281	.0279
168.00	.0278	.0276	.0275	.0274	.0272	.0271	.0269	.0268	.0266	.0265	.0263	.0262
171.00	.0261	.0259	.0258	.0257	.0255	.0254	.0252	.0251	.0250	.0248	.0247	.0246
174.00	.0245	.0243	.0242	.0241	.0239	.0238	.0237	.0236	.0234	.0233	.0232	.0231
177.00	.0229	.0228	.0227	.0226	.0225	.0223	.0222	.0221	.0220	.0219	.0217	.0216
180.00	.0215	.0214	.0213	.0212	.0211	.0209	.0208	.0207	.0206	.0205	.0204	.0203
183.00	.0202	.0201	.0200	.0199	.0198	.0197	.0195	.0194	.0193	.0192	.0191	.0190
186.00	.0189	.0188	.0187	.0186	.0185	.0184	.0183	.0182	.0181	.0180	.0179	.0179
189.00	.0178	.0177	.0176	.0175	.0174	.0173	.0172	.0171	.0170	.0169	.0168	.0167
192.00	.0167	.0166	.0165	.0164	.0163	.0162	.0161	.0160	.0160	.0159	.0158	.0157
195.00	.0156	.0155	.0155	.0154	.0153	.0152	.0151	.0151	.0150	.0149	.0148	.0147
198.00	.0147	.0146	.0145	.0144	.0143	.0143	.0142	.0141	.0140	.0140	.0139	.0138
201.00	.0137	.0137	.0136	.0135	.0135	.0134	.0133	.0132	.0132	.0131	.0130	.0130
204.00	.0129	.0128	.0128	.0127	.0126	.0126	.0125	.0124	.0124	.0123	.0122	.0122
207.00	.0121	.0120	.0120	.0119	.0118	.0118	.0117	.0117	.0116	.0115	.0115	.0114
210.00	.0113	.0113	.0112	.0112	.0111	.0110	.0110	.0109	.0109	.0108	.0108	.0107
213.00	.0106	.0106	.0105	.0105	.0104	.0104	.0103	.0103	.0102	.0101	.0101	.0100
216.00	.0100	.0099	.0099	.0098	.0098	.0097	.0097	.0096	.0096	.0095	.0095	.0094
219.00	.0094	.0093	.0093	.0092	.0092	.0091	.0091	.0090	.0090	.0089	.0089	.0088
222.00	.0088	.0087	.0087	.0086	.0086	.0086	.0085	.0085	.0084	.0084	.0083	.0083
225.00	.0082	.0082	.0082	.0081	.0081	.0080	.0080	.0079	.0079	.0079	.0078	.0078

CE - 144

HALF-LIFE 284.00 DAYS CALCULATION INTERVAL 48.0 HOURS

	HOURS											
DAYS	0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9951	.9903	.9855	.9807	.9759	.9711	.9664	.9617	.9570	.9524	.9477
24.00	.9431	.9385	.9339	.9294	.9249	.9204	.9159	.9114	.9070	.9026	.8982	.8938
48.00	.8895	.8851	.8808	.8765	.8723	.8680	.8638	.8596	.8554	.8512	.8471	.8430
72.00	.8388	.8348	.8307	.8267	.8226	.8186	.8146	.8107	.8067	.8028	.7989	.7950
96.00	.7911	.7873	.7834	.7796	.7758	.7720	.7683	.7645	.7608	.7571	.7534	.7498
120.00	.7461	.7425	.7389	.7353	.7317	.7281	.7246	.7210	.7175	.7140	.7106	.7071
144.00	.7037	.7002	.6968	.6934	.6901	.6867	.6834	.6800	.6767	.6734	.6701	.6669
168.00	.6636	.6604	.6572	.6540	.6508	.6476	.6445	.6413	.6382	.6351	.6320	.6289
192.00	.6259	.6228	.6198	.6168	.6138	.6108	.6078	.6048	.6019	.5990	.5961	.5932
216.00	.5903	.5874	.5845	.5817	.5789	.5760	.5732	.5704	.5677	.5649	.5621	.5594
240.00	.5567	.5540	.5513	.5486	.5459	.5433	.5406	.5380	.5354	.5328	.5302	.5276
264.00	.5250	.5225	.5199	.5174	.5149	.5124	.5099	.5074	.5049	.5024	.5000	.4976
288.00	.4951	.4927	.4903	.4879	.4856	.4832	.4809	.4785	.4762	.4739	.4716	.4693
312.00	.4670	.4647	.4624	.4602	.4579	.4557	.4535	.4513	.4491	.4469	.4447	.4426
336.00	.4404	.4383	.4361	.4340	.4319	.4298	.4277	.4256	.4235	.4215	.4194	.4174
360.00	.4153	.4133	.4113	.4093	.4073	.4053	.4034	.4014	.3994	.3975	.3956	.3936
384.00	.3917	.3898	.3879	.3860	.3841	.3823	.3804	.3786	.3767	.3749	.3731	.3712
408.00	.3694	.3676	.3658	.3641	.3623	.3605	.3588	.3570	.3553	.3536	.3518	.3501
432.00	.3484	.3467	.3450	.3433	.3417	.3400	.3384	.3367	.3351	.3334	.3318	.3302
456.00	.3286	.3270	.3254	.3238	.3222	.3207	.3191	.3176	.3160	.3145	.3129	.3114
480.00	.3099	.3084	.3069	.3054	.3039	.3024	.3010	.2995	.2980	.2966	.2951	.2937
504.00	.2923	.2908	.2894	.2880	.2866	.2852	.2838	.2824	.2811	.2797	.2783	.2770
528.00	.2756	.2743	.2730	.2716	.2703	.2690	.2677	.2664	.2651	.2638	.2625	.2612
552.00	.2600	.2587	.2574	.2562	.2549	.2537	.2525	.2512	.2500	.2488	.2476	.2464
576.00	.2452	.2440	.2428	.2416	.2404	.2393	.2381	.2369	.2358	.2346	.2335	.2323
600.00	.2312	.2301	.2290	.2279	.2267	.2256	.2245	.2235	.2224	.2213	.2202	.2191
624.00	.2181	.2170	.2159	.2149	.2138	.2128	.2118	.2107	.2097	.2087	.2077	.2067
648.00	.2057	.2047	.2037	.2027	.2017	.2007	.1997	.1987	.1978	.1968	.1959	.1949
672.00	.1940	.1930	.1921	.1911	.1902	.1893	.1884	.1874	.1865	.1856	.1847	.1838
696.00	.1829	.1820	.1811	.1803	.1794	.1785	.1776	.1768	.1759	.1751	.1742	.1734
720.00	.1725	.1717	.1708	.1700	.1692	.1684	.1675	.1667	.1659	.1651	.1643	.1635
744.00	.1627	.1619	.1611	.1603	.1596	.1588	.1580	.1572	.1565	.1557	.1549	.1542
768.00	.1534	.1527	.1520	.1512	.1505	.1497	.1490	.1483	.1476	.1468	.1461	.1454
792.00	.1447	.1440	.1433	.1426	.1419	.1412	.1405	.1399	.1392	.1385	.1378	.1371
816.00	.1365	.1358	.1352	.1345	.1338	.1332	.1325	.1319	.1313	.1306	.1300	.1293
840.00	.1287	.1281	.1275	.1268	.1262	.1256	.1250	.1244	.1238	.1232	.1226	.1220
864.00	.1214	.1208	.1202	.1196	.1190	.1185	.1179	.1173	.1167	.1162	.1156	.1150
888.00	.1145	.1139	.1134	.1128	.1123	.1117	.1112	.1106	.1101	.1096	.1090	.1085
912.00	.1080	.1074	.1069	.1064	.1059	.1054	.1049	.1043	.1038	.1033	.1028	.1023
936.00	.1018	.1013	.1008	.1003	.0999	.0994	.0989	.0984	.0979	.0975	.0970	.0965
960.00	.0960	.0956	.0951	.0946	.0942	.0937	.0933	.0928	.0924	.0919	.0915	.0910
984.00	.0906	.0901	.0897	.0893	.0888	.0884	.0880	.0875	.0871	.0867	.0863	.0858
1008.00	.0854	.0850	.0846	.0842	.0838	.0834	.0830	.0825	.0821	.0817	.0813	.0810
1032.00	.0806	.0802	.0798	.0794	.0790	.0786	.0782	.0779	.0775	.0771	.0767	.0763

HALF-LIFF 17.27 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	SECONDS 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9967	.9933	.9900	.9867	.9834	.9801	.9769	.9736	.9703	.9671	.9639
1.00	.9607	.9575	.9543	.9511	.9479	.9447	.9416	.9384	.9353	.9322	.9291	.9260
2.00	.9229	.9198	.9167	.9137	.9106	.9076	.9045	.9015	.8985	.8955	.[illegible]25	.8895
3.00	.8866	.8836	.8806	.8777	.8748	.8719	.8689	.8660	.8632	.8603	.8574	.8545
4.00	.8517	.8488	.8460	.8432	.8404	.8376	.8348	.8320	.8292	.8264	.8237	.8209
5.00	.8182	.8154	.8127	.8100	.8073	.8046	.8019	.7992	.7966	.7939	.7913	.7886
6.00	.7860	.7834	.7807	.7781	.7755	.7730	.7704	.7678	.7652	.7627	.7601	.7576
7.00	.7551	.7525	.7500	.7475	.7450	.7425	.7401	.7376	.7351	.7327	.7302	.7278
8.00	.7254	.7229	.7205	.7181	.7157	.7133	.7109	.7086	.7062	.7039	.7015	.6992
9.00	.6968	.6945	.6922	.6899	.6876	.6853	.6830	.6807	.6784	.6762	.6739	.6717
10.00	.6694	.6672	.6649	.6627	.6605	.6583	.6561	.6539	.6517	.6496	.6474	.6452
11.00	.6431	.6409	.6388	.6367	.6345	.6324	.6303	.6282	.6261	.6240	.6219	.6198
12.00	.6178	.6157	.6137	.6116	.6096	.6075	.6055	.6035	.6015	.5995	.5975	.5955
13.00	.5935	.5915	.5895	.5875	.5856	.5836	.5817	.5797	.5778	.5759	.5739	.5720
14.00	.5701	.5682	.5663	.5644	.5625	.5607	.5588	.5569	.5551	.5532	.5514	.5495
15.00	.5477	.5459	.5440	.5422	.5404	.5386	.5368	.5350	.5332	.5315	.5297	.5279
16.00	.5261	.5244	.5226	.5209	.5192	.5174	.5157	.5140	.5123	.5105	.5088	.5071
17.00	.5054	.5038	.5021	.5004	.4987	.4971	.4954	.4938	.4921	.4905	.4888	.4872
18.00	.4856	.4839	.4823	.4807	.4791	.4775	.4759	.4743	.4727	.4712	.4696	.4680
19.00	.4665	.4649	.4634	.4618	.4603	.4587	.4572	.4557	.4541	.4526	.4511	.4496
20.00	.4481	.4466	.4451	.4436	.4422	.4407	.4392	.4377	.4363	.4348	.4334	.4319
21.00	.4305	.4290	.4276	.4262	.4248	.4233	.4219	.4205	.4191	.4177	.4163	.4149
22.00	.4135	.4122	.4108	.4094	.4080	.4067	.4053	.4040	.4026	.4013	.3999	.3986
23.00	.3973	.3959	.3946	.3933	.3920	.3907	.3894	.3881	.3868	.3855	.3842	.3829
24.00	.3816	.3804	.3791	.3778	.3766	.3753	.3741	.3728	.3716	.3703	.3691	.3679
25.00	.3666	.3654	.3642	.3630	.3618	.3606	.3593	.3581	.3570	.3558	.3546	.3534
26.00	.3522	.3510	.3499	.3487	.3475	.3464	.3452	.3441	.3429	.3418	.3406	.3395
27.00	.3384	.3372	.3361	.3350	.3339	.3327	.3316	.3305	.3294	.3283	.3272	.3261
28.00	.3250	.3240	.3229	.3218	.3207	.3196	.3186	.3175	.3165	.3154	.3143	.3133
29.00	.3123	.3112	.3102	.3091	.3081	.3071	.3060	.3050	.3040	.3030	.3020	.3010
30.00	.3000	.2990	.2980	.2970	.2960	.2950	.2940	.2930	.2920	.2911	.2901	.2891
31.00	.2882	.2872	.2862	.2853	.2843	.2834	.2824	.2815	.2806	.2796	.2787	.2778
32.00	.2768	.2759	.2750	.2741	.2732	.2722	.2713	.2704	.2695	.2686	.2677	.2668
33.00	.2659	.2651	.2642	.2633	.2624	.2615	.2607	.2598	.2589	.2581	.2572	.2563
34.00	.2555	.2546	.2538	.2529	.2521	.2512	.2504	.2496	.2487	.2479	.2471	.2462
35.00	.2454	.2446	.2438	.2430	.2422	.2414	.2406	.2397	.2389	.2381	.2374	.2366
36.00	.2358	.2350	.2342	.2334	.2326	.2319	.2311	.2303	.2295	.2288	.2280	.2273
37.00	.2265	.2257	.2250	.2242	.2235	.2227	.2220	.2213	.2205	.2198	.2190	.2183
38.00	.2176	.2169	.2161	.2154	.2147	.2140	.2133	.2126	.2118	.2111	.2104	.2097
39.00	.2090	.2083	.2076	.2069	.2062	.2056	.2049	.2042	.2035	.2028	.2021	.2015
40.00	.2008	.2001	.1995	.1988	.1981	.1975	.1968	.1962	.1955	.1948	.1942	.1935
41.00	.1929	.1923	.1916	.1910	.1903	.1897	.1891	.1884	.1878	.1872	.1866	.1859
42.00	.1853	.1847	.1841	.1835	.1829	.1822	.1816	.1810	.1804	.1798	.1792	.1786
43.00	.1780	.1774	.1768	.1762	.1757	.1751	.1745	.1739	.1733	.1727	.1722	.1716
44.00	.1710	.1704	.1699	.1693	.1687	.1682	.1676	.1671	.1665	.1659	.1654	.1648
45.00	.1643	.1637	.1632	.1627	.1621	.1616	.1610	.1605	.1600	.1594	.1589	.1584
46.00	.1578	.1573	.1568	.1563	.1557	.1552	.1547	.1542	.1537	.1531	.1526	.1521
47.00	.1516	.1511	.1506	.1501	.1496	.1491	.1486	.1481	.1476	.1471	.1466	.1461
48.00	.1457	.1452	.1447	.1442	.1437	.1432	.1428	.1423	.1418	.1413	.1409	.1404
49.00	.1399	.1395	.1390	.1385	.1381	.1376	.1371	.1367	.1362	.1358	.1353	.1349
50.00	.1344	.1340	.1335	.1331	.1326	.1322	.1317	.1313	.1309	.1304	.1300	.1296
51.00	.1291	.1287	.1283	.1278	.1274	.1270	.1266	.1261	.1257	.1253	.1249	.1245
52.00	.1241	.1236	.1232	.1228	.1224	.1220	.1216	.1212	.1208	.1204	.1200	.1196
53.00	.1192	.1188	.1184	.1180	.1176	.1172	.1168	.1164	.1160	.1156	.1153	.1149
54.00	.1145	.1141	.1137	.1133	.1130	.1126	.1122	.1118	.1115	.1111	.1107	.1103

PR - 144

HALF-LIFE 17.27 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	SECONDS 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
55.00	.1100	.1096	.1092	.1089	.1085	.1082	.1078	.1074	.1071	.1067	.1064	.1060
56.00	.1057	.1053	.1049	.1046	.1042	.1039	.1036	.1032	.1029	.1025	.1022	.1018
57.00	.1015	.1012	.1008	.1005	.1001	.0998	.0995	.0991	.0988	.0985	.0982	.0978
58.00	.0975	.0972	.0969	.0965	.0962	.0959	.0956	.0952	.0949	.0946	.0943	.0940
59.00	.0937	.0934	.0930	.0927	.0924	.0921	.0918	.0915	.0912	.0909	.0906	.0903
60.00	.0900	.0897	.0894	.0891	.0888	.0885	.0882	.0879	.0876	.0873	.0870	.0867
61.00	.0864	.0862	.0859	.0856	.0853	.0850	.0847	.0844	.0842	.0839	.0836	.0833
62.00	.0830	.0828	.0825	.0822	.0819	.0817	.0814	.0811	.0808	.0806	.0803	.0800
63.00	.0798	.0795	.0792	.0790	.0787	.0785	.0782	.0779	.0777	.0774	.0771	.0769

ND - 147

HALF-LIFE 11.06 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9948	.9896	.9845	.9793	.9742	.9692	.9641	.9591	.9541	.9491	.9442
1.00	.9393	.9344	.9295	.9247	.9198	.9150	.9103	.9055	.9008	.8961	.8915	.8868
2.00	.8822	.8776	.8730	.8685	.8640	.8595	.8550	.8505	.8461	.8417	.8373	.8329
3.00	.8286	.8243	.8200	.8157	.8115	.8072	.8030	.7989	.7947	.7906	.7864	.7823
4.00	.7783	.7742	.7702	.7662	.7622	.7582	.7543	.7503	.7464	.7425	.7387	.7348
5.00	.7310	.7272	.7234	.7196	.7159	.7121	.7084	.7047	.7011	.6974	.6938	.6902
6.00	.6866	.6830	.6794	.6759	.6724	.6689	.6654	.6619	.6585	.6551	.6516	.6483
7.00	.6449	.6415	.6382	.6348	.6315	.6283	.6250	.6217	.6185	.6153	.6121	.6089
8.00	.6057	.6025	.5994	.5963	.5932	.5901	.5870	.5840	.5809	.5779	.5749	.5719
9.00	.5689	.5659	.5630	.5601	.5571	.5542	.5514	.5485	.5456	.5428	.5400	.5371
10.00	.5343	.5316	.5288	.5260	.5233	.5206	.5179	.5152	.5125	.5098	.5072	.5045
11.00	.5019	.4993	.4967	.4941	.4915	.4889	.4864	.4839	.4813	.4788	.4763	.4739
12.00	.4714	.4689	.4665	.4641	.4616	.4592	.4569	.4545	.4521	.4498	.4474	.4451
13.00	.4428	.4405	.4382	.4359	.4336	.4313	.4291	.4269	.4246	.4224	.4202	.4180
14.00	.4159	.4137	.4115	.4094	.4073	.4051	.4030	.4009	.3988	.3968	.3947	.3926
15.00	.3906	.3886	.3865	.3845	.3825	.3805	.3785	.3766	.3746	.3727	.3707	.3688
16.00	.3669	.3650	.3631	.3612	.3593	.3574	.3556	.3537	.3519	.3500	.3482	.3464
17.00	.3446	.3428	.3410	.3392	.3375	.3357	.3340	.3322	.3305	.3288	.3270	.3253
18.00	.3237	.3220	.3203	.3186	.3170	.3153	.3137	.3120	.3104	.3088	.3072	.3056
19.00	.3040	.3024	.3008	.2993	.2977	.2962	.2946	.2931	.2916	.2900	.2885	.2870
20.00	.2855	.2840	.2826	.2811	.2796	.2782	.2767	.2753	.2738	.2724	.2710	.2696
21.00	.2682	.2668	.2654	.2640	.2626	.2613	.2599	.2586	.2572	.2559	.2545	.2532
22.00	.2519	.2506	.2493	.2480	.2467	.2454	.2441	.2428	.2416	.2403	.2391	.2378
23.00	.2366	.2354	.2341	.2329	.2317	.2305	.2293	.2281	.2269	.2257	.2245	.2234
24.00	.2222	.2211	.2199	.2188	.2176	.2165	.2154	.2142	.2131	.2120	.2109	.2098
25.00	.2087	.2076	.2065	.2055	.2044	.2033	.2023	.2012	.2002	.1991	.1981	.1971
26.00	.1960	.1950	.1940	.1930	.1920	.1910	.1900	.1890	.1880	.1870	.1861	.1851
27.00	.1841	.1832	.1822	.1813	.1803	.1794	.1784	.1775	.1766	.1757	.1748	.1738
28.00	.1729	.1720	.1711	.1703	.1694	.1685	.1676	.1667	.1659	.1650	.1641	.1633
29.00	.1624	.1616	.1607	.1599	.1591	.1582	.1574	.1566	.1558	.1550	.1542	.1534
30.00	.1526	.1518	.1510	.1502	.1494	.1486	.1479	.1471	.1463	.1456	.1448	.1440
31.00	.1433	.1426	.1418	.1411	.1403	.1396	.1389	.1382	.1374	.1367	.1360	.1353
32.00	.1346	.1339	.1332	.1325	.1318	.1311	.1304	.1298	.1291	.1284	.1277	.1271
33.00	.1264	.1258	.1251	.1245	.1238	.1232	.1225	.1219	.1212	.1206	.1200	.1194
34.00	.1187	.1181	.1175	.1169	.1163	.1157	.1151	.1145	.1139	.1133	.1127	.1121
35.00	.1115	.1109	.1104	.1098	.1092	.1087	.1081	.1075	.1070	.1064	.1059	.1053
36.00	.1048	.1042	.1037	.1031	.1026	.1021	.1015	.1010	.1005	.0999	.0994	.0989
37.00	.0984	.0979	.0974	.0969	.0964	.0959	.0954	.0949	.0944	.0939	.0934	.0929
38.00	.0924	.0919	.0914	.0910	.0905	.0900	.0896	.0891	.0886	.0882	.0877	.0873
39.00	.0868	.0863	.0859	.0854	.0850	.0846	.0841	.0837	.0832	.0828	.0824	.0820

ND - 147

HALF-LIFE 11.06 DAYS CALCULATION INTERVAL 2.0 HOURS

	HOURS											
DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
40.00	.0815	.0811	.0807	.0803	.0798	.0794	.0790	.0786	.0782	.0778	.0774	.0770
41.00	.0766	.0762	.0758	.0754	.0750	.0746	.0742	.0738	.0734	.0731	.0727	.0723
42.00	.0719	.0715	.0712	.0708	.0704	.0701	.0697	.0693	.0690	.0686	.0683	.0679
43.00	.0676	.0672	.0668	.0665	.0662	.0658	.0655	.0651	.0648	.0644	.0641	.0638
44.00	.0634	.0631	.0628	.0625	.0621	.0618	.0615	.0612	.0609	.0605	.0602	.0599
45.00	.0596	.0593	.0590	.0587	.0584	.0581	.0578	.0575	.0572	.0569	.0566	.0563
46.00	.0560	.0557	.0554	.0551	.0548	.0545	.0542	.0540	.0537	.0534	.0531	.0528
47.00	.0526	.0523	.0520	.0518	.0515	.0512	.0510	.0507	.0504	.0502	.0499	.0496
48.00	.0494	.0491	.0489	.0486	.0484	.0481	.0479	.0476	.0474	.0471	.0469	.0466
49.00	.0464	.0461	.0459	.0457	.0454	.0452	.0449	.0447	.0445	.0442	.0440	.0438
50.00	.0436	.0433	.0431	.0429	.0427	.0424	.0422	.0420	.0418	.0416	.0413	.0411
51.00	.0409	.0407	.0405	.0403	.0401	.0399	.0397	.0394	.0392	.0390	.0388	.0386
52.00	.0384	.0382	.0380	.0378	.0376	.0374	.0372	.0371	.0369	.0367	.0365	.0363
53.00	.0361	.0359	.0357	.0355	.0353	.0352	.0350	.0348	.0346	.0344	.0343	.0341
54.00	.0339	.0337	.0336	.0334	.0332	.0330	.0329	.0327	.0325	.0323	.0322	.0320
55.00	.0318	.0317	.0315	.0313	.0312	.0310	.0309	.0307	.0305	.0304	.0302	.0301
56.00	.0299	.0298	.0296	.0294	.0293	.0291	.0290	.0288	.0287	.0285	.0284	.0282
57.00	.0281	.0279	.0278	.0277	.0275	.0274	.0272	.0271	.0269	.0268	.0267	.0265
58.00	.0264	.0262	.0261	.0260	.0258	.0257	.0256	.0254	.0253	.0252	.0250	.0249
59.00	.0248	.0247	.0245	.0244	.0243	.0241	.0240	.0239	.0238	.0236	.0235	.0234
60.00	.0233	.0232	.0230	.0229	.0228	.0227	.0226	.0224	.0223	.0222	.0221	.0220
61.00	.0219	.0217	.0216	.0215	.0214	.0213	.0212	.0211	.0210	.0209	.0208	.0206
62.00	.0205	.0204	.0203	.0202	.0201	.0200	.0199	.0198	.0197	.0196	.0195	.0194
63.00	.0193	.0192	.0191	.0190	.0189	.0188	.0187	.0186	.0185	.0184	.0183	.0182
64.00	.0181	.0180	.0179	.0178	.0177	.0176	.0176	.0175	.0174	.0173	.0172	.0171
65.00	.0170	.0169	.0168	.0168	.0167	.0166	.0165	.0164	.0163	.0162	.0161	.0161
66.00	.0160	.0159	.0158	.0157	.0157	.0156	.0155	.0154	.0153	.0152	.0152	.0151
67.00	.0150	.0149	.0149	.0148	.0147	.0146	.0145	.0145	.0144	.0143	.0142	.0142
68.00	.0141	.0140	.0140	.0139	.0138	.0137	.0137	.0136	.0135	.0135	.0134	.0133
69.00	.0132	.0132	.0131	.0130	.0130	.0129	.0128	.0128	.0127	.0126	.0126	.0125
70.00	.0124	.0124	.0123	.0122	.0122	.0121	.0121	.0120	.0119	.0119	.0118	.0117
71.00	.0117	.0116	.0116	.0115	.0114	.0114	.0113	.0113	.0112	.0111	.0111	.0110
72.00	.0110	.0109	.0109	.0108	.0107	.0107	.0106	.0106	.0105	.0105	.0104	.0104
73.00	.0103	.0103	.0102	.0101	.0101	.0100	.0100	.0099	.0099	.0098	.0098	.0097
74.00	.0097	.0096	.0096	.0095	.0095	.0094	.0094	.0093	.0093	.0092	.0092	.0091
75.00	.0091	.0090	.0090	.0090	.0089	.0089	.0088	.0088	.0087	.0087	.0086	.0086
76.00	.0085	.0085	.0085	.0084	.0084	.0083	.0083	.0082	.0082	.0081	.0081	.0081
77.00	.0080	.0080	.0079	.0079	.0079	.0078	.0078	.0077	.0077	.0077	.0076	.0076

PM - 147

HALF-LIFE 2.62 YEARS CALCULATION INTERVAL 5.0 DAYS

	DAYS									
DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9964	.9928	.9892	.9856	.9820	.9785	.9750	.9714	.9679
50.0	.9644	.9609	.9574	.9540	.9505	.9471	.9437	.9402	.9368	.9335
100.0	.9301	.9267	.9234	.9200	.9167	.9134	.9101	.9068	.9035	.9002
150.0	.8970	.8937	.8905	.8873	.8841	.8809	.8777	.8745	.8713	.8682
200.0	.8651	.8619	.8588	.8557	.8526	.8495	.8464	.8434	.8403	.8373
250.0	.8343	.8312	.8282	.8252	.8223	.8193	.8163	.8134	.8104	.8075
300.0	.8046	.8017	.7988	.7959	.7930	.7901	.7873	.7844	.7816	.7788
350.0	.7759	.7731	.7703	.7675	.7648	.7620	.7592	.7565	.7538	.7510
400.0	.7483	.7456	.7429	.7402	.7375	.7349	.7322	.7296	.7269	.7243
450.0	.7217	.7191	.7165	.7139	.7113	.7087	.7062	.7036	.7011	.6985

HALF-LIFE 2.62 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
500.0	.6960	.6935	.6910	.6885	.6860	.6835	.6810	.6786	.6761	.6737
550.0	.6712	.6688	.6664	.6640	.6616	.6592	.6568	.6544	.6520	.6497
600.0	.6473	.6450	.6427	.6403	.6380	.6357	.6334	.6311	.6288	.6266
650.0	.6243	.6220	.6198	.6175	.6153	.6131	.6109	.6087	.6065	.6043
700.0	.6021	.5999	.5977	.5956	.5934	.5913	.5891	.5870	.5849	.5828
750.0	.5806	.5785	.5765	.5744	.5723	.5702	.5682	.5661	.5641	.5620
800.0	.5600	.5580	.5559	.5539	.5519	.5499	.5479	.5460	.5440	.5420
850.0	.5400	.5381	.5361	.5342	.5323	.5303	.5284	.5265	.5246	.5227
900.0	.5208	.5189	.5171	.5152	.5133	.5115	.5096	.5078	.5059	.5041
950.0	.5023	.5005	.4987	.4969	.4951	.4933	.4915	.4897	.4879	.4862
1000.0	.4844	.4827	.4809	.4792	.4774	.4757	.4740	.4723	.4706	.4689
1050.0	.4672	.4655	.4638	.4621	.4604	.4588	.4571	.4555	.4538	.4522
1100.0	.4505	.4489	.4473	.4457	.4441	.4425	.4409	.4393	.4377	.4361
1150.0	.4345	.4329	.4314	.4298	.4283	.4267	.4252	.4236	.4221	.4206
1200.0	.4190	.4175	.4160	.4145	.4130	.4115	.4100	.4085	.4071	.4056
1250.0	.4041	.4027	.4012	.3998	.3983	.3969	.3954	.3940	.3926	.3912
1300.0	.3897	.3883	.3869	.3855	.3841	.3827	.3814	.3800	.3786	.3772
1350.0	.3759	.3745	.3732	.3718	.3705	.3691	.3678	.3665	.3651	.3638
1400.0	.3625	.3612	.3599	.3586	.3573	.3560	.3547	.3534	.3521	.3509
1450.0	.3496	.3483	.3471	.3458	.3446	.3433	.3421	.3408	.3396	.3384
1500.0	.3371	.3359	.3347	.3335	.3323	.3311	.3299	.3287	.3275	.3263
1550.0	.3251	.3240	.3228	.3216	.3205	.3193	.3182	.3170	.3159	.3147
1600.0	.3136	.3124	.3113	.3102	.3091	.3079	.3068	.3057	.3046	.3035
1650.0	.3024	.3013	.3002	.2991	.2981	.2970	.2959	.2948	.2938	.2927
1700.0	.2917	.2906	.2895	.2885	.2875	.2864	.2854	.2843	.2833	.2823
1750.0	.2813	.2803	.2792	.2782	.2772	.2762	.2752	.2742	.2732	.2722
1800.0	.2713	.2703	.2693	.2683	.2674	.2664	.2654	.2645	.2635	.2626
1850.0	.2616	.2607	.2597	.2588	.2578	.2569	.2560	.2551	.2541	.2532
1900.0	.2523	.2514	.2505	.2496	.2487	.2478	.2469	.2460	.2451	.2442
1950.0	.2433	.2424	.2416	.2407	.2398	.2389	.2381	.2372	.2364	.2355
2000.0	.2347	.2338	.2330	.2321	.2313	.2304	.2296	.2288	.2279	.2271
2050.0	.2263	.2255	.2247	.2239	.2230	.2222	.2214	.2206	.2198	.2190
2100.0	.2182	.2175	.2167	.2159	.2151	.2143	.2136	.2128	.2120	.2112
2150.0	.2105	.2097	.2090	.2082	.2075	.2067	.2060	.2052	.2045	.2037
2200.0	.2030	.2023	.2015	.2008	.2001	.1993	.1986	.1979	.1972	.1965
2250.0	.1958	.1951	.1943	.1936	.1929	.1922	.1916	.1909	.1902	.1895
2300.0	.1888	.1881	.1874	.1868	.1861	.1854	.1847	.1841	.1834	.1827
2350.0	.1821	.1814	.1808	.1801	.1795	.1788	.1782	.1775	.1769	.1762
2400.0	.1756	.1750	.1743	.1737	.1731	.1724	.1718	.1712	.1706	.1700
2450.0	.1693	.1687	.1681	.1675	.1669	.1663	.1657	.1651	.1645	.1639
2500.0	.1633	.1627	.1621	.1616	.1610	.1604	.1598	.1592	.1587	.1581
2550.0	.1575	.1569	.1564	.1558	.1552	.1547	.1541	.1536	.1530	.1525
2600.0	.1519	.1513	.1508	.1503	.1497	.1492	.1486	.1481	.1476	.1470
2650.0	.1465	.1460	.1454	.1449	.1444	.1439	.1433	.1428	.1423	.1418
2700.0	.1413	.1408	.1403	.1398	.1392	.1387	.1382	.1377	.1372	.1367
2750.0	.1363	.1358	.1353	.1348	.1343	.1338	.1333	.1328	.1324	.1319
2800.0	.1314	.1309	.1305	.1300	.1295	.1290	.1286	.1281	.1276	.1272
2850.0	.1267	.1263	.1258	.1254	.1249	.1244	.1240	.1235	.1231	.1227
2900.0	.1222	.1218	.1213	.1209	.1205	.1200	.1196	.1192	.1187	.1183
2950.0	.1179	.1174	.1170	.1166	.1162	.1157	.1153	.1149	.1145	.1141
3000.0	.1137	.1133	.1128	.1124	.1120	.1116	.1112	.1108	.1104	.1100
3050.0	.1096	.1092	.1088	.1084	.1080	.1077	.1073	.1069	.1065	.1061
3100.0	.1057	.1053	.1050	.1046	.1042	.1038	.1034	.1031	.1027	.1023
3150.0	.1020	.1016	.1012	.1009	.1005	.1001	.0998	.0994	.0990	.0987
3200.0	.0983	.0980	.0976	.0973	.0969	.0966	.0962	.0959	.0955	.0952

PM - 147

HALF-LIFE 2.62 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
	DAYS									
3250.0	.0948	.0945	.0941	.0938	.0935	.0931	.0928	.0925	.0921	.0918
3300.0	.0915	.0911	.0908	.0905	.0901	.0898	.0895	.0892	.0888	.0885
3350.0	.0882	.0879	.0876	.0872	.0869	.0866	.0863	.0860	.0857	.0854
3400.0	.0851	.0848	.0844	.0841	.0838	.0835	.0832	.0829	.0826	.0823
3450.0	.0820	.0817	.0814	.0811	.0809	.0806	.0803	.0800	.0797	.0794

SM - 153

HALF-LIFE 46.80 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
	MINUTES											
0.00	1.0000	.9926	.9853	.9780	.9708	.9637	.9565	.9495	.9425	.9355	.9286	.9218
6.00	.9150	.9082	.9015	.8949	.8883	.8817	.8752	.8687	.8623	.8560	.8497	.8434
12.00	.8372	.8310	.8249	.8188	.8127	.8067	.8008	.7949	.7890	.7832	.7774	.7717
18.00	.7660	.7603	.7547	.7492	.7436	.7381	.7327	.7273	.7219	.7166	.7113	.7061
24.00	.7009	.6957	.6905	.6855	.6804	.6754	.6704	.6654	.6605	.6557	.6508	.6460
30.00	.6413	.6365	.6318	.6272	.6225	.6179	.6134	.6089	.6044	.5999	.5955	.5911
36.00	.5867	.5824	.5781	.5738	.5696	.5654	.5612	.5571	.5530	.5489	.5449	.5408
42.00	.5368	.5329	.5289	.5250	.5212	.5173	.5135	.5097	.5060	.5022	.4985	.4948
48.00	.4912	.4876	.4840	.4804	.4769	.4733	.4698	.4664	.4629	.4595	.4561	.4528
54.00	.4494	.4461	.4428	.4396	.4363	.4331	.4299	.4267	.4236	.4204	.4173	.4143
60.00	.4112	.4082	.4052	.4022	.3992	.3963	.3933	.3904	.3876	.3847	.3819	.3790
66.00	.3762	.3735	.3707	.3680	.3653	.3626	.3599	.3572	.3546	.3520	.3494	.3468
72.00	.3443	.3417	.3392	.3367	.3342	.3317	.3293	.3269	.3245	.3221	.3197	.3173
78.00	.3150	.3127	.3103	.3081	.3058	.3035	.3013	.2991	.2969	.2947	.2925	.2903
84.00	.2882	.2861	.2840	.2819	.2798	.2777	.2757	.2736	.2716	.2696	.2676	.2657
90.00	.2637	.2617	.2598	.2579	.2560	.2541	.2522	.2504	.2485	.2467	.2449	.2431
96.00	.2413	.2395	.2377	.2360	.2342	.2325	.2308	.2291	.2274	.2257	.2240	.2224
102.00	.2208	.2191	.2175	.2159	.2143	.2127	.2112	.2096	.2081	.2065	.2050	.2035
108.00	.2020	.2005	.1990	.1975	.1961	.1946	.1932	.1918	.1904	.1890	.1876	.1862
114.00	.1848	.1834	.1821	.1807	.1794	.1781	.1768	.1755	.1742	.1729	.1716	.1704
120.00	.1691	.1678	.1666	.1654	.1642	.1629	.1617	.1606	.1594	.1582	.1570	.1559
126.00	.1547	.1536	.1524	.1513	.1502	.1491	.1480	.1469	.1458	.1447	.1437	.1426
132.00	.1416	.1405	.1395	.1384	.1374	.1364	.1354	.1344	.1334	.1324	.1315	.1305
138.00	.1295	.1286	.1276	.1267	.1257	.1248	.1239	.1230	.1221	.1212	.1203	.1194
144.00	.1185	.1176	.1168	.1159	.1151	.1142	.1134	.1125	.1117	.1109	.1101	.1092
150.00	.1084	.1076	.1068	.1061	.1053	.1045	.1037	.1030	.1022	.1014	.1007	.1000
156.00	.0992	.0985	.0978	.0970	.0963	.0956	.0949	.0942	.0935	.0928	.0921	.0915
162.00	.0908	.0901	.0894	.0888	.0881	.0875	.0868	.0862	.0856	.0849	.0843	.0837
168.00	.0831	.0824	.0818	.0812	.0806	.0800	.0794	.0789	.0783	.0777	.0771	.0766

EU - 152

HALF-LIFE 12.70 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
	DAYS									
0.0	1.0000	.9955	.9911	.9866	.9822	.9778	.9734	.9691	.9647	.9604
300.0	.9561	.9519	.9476	.9434	.9391	.9349	.9307	.9266	.9224	.9183
600.0	.9142	.9101	.9060	.9020	.8979	.8939	.8899	.8859	.8820	.8780
900.0	.8741	.8702	.8663	.8624	.8585	.8547	.8509	.8471	.8433	.8395
1200.0	.8357	.8320	.8283	.8246	.8209	.8172	.8135	.8099	.8063	.8027
1500.0	.7991	.7955	.7919	.7884	.7849	.7814	.7779	.7744	.7709	.7675
1800.0	.7640	.7606	.7572	.7538	.7504	.7471	.7437	.7404	.7371	.7338
2100.0	.7305	.7272	.7240	.7207	.7175	.7143	.7111	.7079	.7048	.7016
2400.0	.6985	.6953	.6922	.6891	.6860	.6830	.6799	.6769	.6738	.6708
2700.0	.6678	.6648	.6619	.6589	.6559	.6530	.6501	.6472	.6443	.6414

EU - 152

HALF-LIFE 12.70 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
3000.0	.6385	.6357	.6328	.6300	.6272	.6244	.6216	.6188	.6160	.6133
3300.0	.6105	.6078	.6051	.6024	.5997	.5970	.5943	.5916	.5890	.5864
3600.0	.5837	.5811	.5785	.5759	.5734	.5708	.5682	.5657	.5632	.5606
3900.0	.5581	.5556	.5531	.5507	.5482	.5457	.5433	.5409	.5385	.5360
4200.0	.5336	.5313	.5289	.5265	.5242	.5218	.5195	.5171	.5148	.5125
4500.0	.5102	.5080	.5057	.5034	.5012	.4989	.4967	.4945	.4922	.4900
4800.0	.4879	.4857	.4835	.4813	.4792	.4770	.4749	.4728	.4707	.4685
5100.0	.4665	.4644	.4623	.4602	.4582	.4561	.4541	.4520	.4500	.4480
5400.0	.4460	.4440	.4420	.4400	.4381	.4361	.4341	.4322	.4303	.4283
5700.0	.4264	.4245	.4226	.4207	.4188	.4170	.4151	.4132	.4114	.4096
6000.0	.4077	.4059	.4041	.4023	.4005	.3987	.3969	.3951	.3933	.3916
6300.0	.3898	.3881	.3863	.3846	.3829	.3812	.3795	.3778	.3761	.3744
6600.0	.3727	.3711	.3694	.3677	.3661	.3645	.3628	.3612	.3596	.3580
6900.0	.3564	.3548	.3532	.3516	.3500	.3485	.3469	.3454	.3438	.3423
7200.0	.3407	.3392	.3377	.3362	.3347	.3332	.3317	.3302	.3287	.3273
7500.0	.3258	.3243	.3229	.3214	.3200	.3186	.3171	.3157	.3143	.3129
7800.0	.3115	.3101	.3087	.3073	.3060	.3046	.3032	.3019	.3005	.2992
8100.0	.2978	.2965	.2952	.2939	.2925	.2912	.2899	.2886	.2873	.2861
8400.0	.2848	.2835	.2822	.2810	.2797	.2785	.2772	.2760	.2747	.2735
8700.0	.2723	.2711	.2699	.2686	.2674	.2662	.2651	.2639	.2627	.2615
9000.0	.2603	.2592	.2580	.2569	.2557	.2546	.2534	.2523	.2512	.2500
9300.0	.2489	.2478	.2467	.2456	.2445	.2434	.2423	.2412	.2401	.2391
9600.0	.2380	.2369	.2359	.2348	.2338	.2327	.2317	.2306	.2296	.2286
9900.0	.2276	.2265	.2255	.2245	.2235	.2225	.2215	.2205	.2195	.2186
10200.0	.2176	.2166	.2156	.2147	.2137	.2128	.2118	.2108	.2099	.2090
10500.0	.2080	.2071	.2062	.2053	.2043	.2034	.2025	.2016	.2007	.1998
10800.0	.1989	.1980	.1971	.1962	.1954	.1945	.1936	.1928	.1919	.1910
11100.0	.1902	.1893	.1885	.1876	.1868	.1860	.1851	.1843	.1835	.1827
11400.0	.1818	.1810	.1802	.1794	.1786	.1778	.1770	.1762	.1754	.1746
11700.0	.1739	.1731	.1723	.1715	.1708	.1700	.1692	.1685	.1677	.1670
12000.0	.1662	.1655	.1647	.1640	.1633	.1625	.1618	.1611	.1604	.1597
12300.0	.1589	.1582	.1575	.1568	.1561	.1554	.1547	.1540	.1533	.1527
12600.0	.1520	.1513	.1506	.1499	.1493	.1486	.1479	.1473	.1466	.1460
12900.0	.1453	.1447	.1440	.1434	.1427	.1421	.1414	.1408	.1402	.1396
13200.0	.1389	.1383	.1377	.1371	.1365	.1358	.1352	.1346	.1340	.1334
13500.0	.1328	.1322	.1316	.1311	.1305	.1299	.1293	.1287	.1282	.1276
13800.0	.1270	.1264	.1259	.1253	.1247	.1242	.1236	.1231	.1225	.1220
14100.0	.1214	.1209	.1204	.1198	.1193	.1187	.1182	.1177	.1172	.1166
14400.0	.1161	.1156	.1151	.1146	.1140	.1135	.1130	.1125	.1120	.1115
14700.0	.1110	.1105	.1100	.1095	.1090	.1086	.1081	.1076	.1071	.1066
15000.0	.1061	.1057	.1052	.1047	.1043	.1038	.1033	.1029	.1024	.1019
15300.0	.1015	.1010	.1006	.1001	.0997	.0992	.0988	.0984	.0979	.0975
15600.0	.0970	.0966	.0962	.0957	.0953	.0949	.0945	.0940	.0936	.0932
15900.0	.0928	.0924	.0920	.0915	.0911	.0907	.0903	.0899	.0895	.0891
16200.0	.0887	.0883	.0879	.0875	.0871	.0867	.0864	.0860	.0856	.0852
16500.0	.0848	.0844	.0841	.0837	.0833	.0829	.0826	.0822	.0818	.0815
16800.0	.0811	.0807	.0804	.0800	.0797	.0793	.0789	.0786	.0782	.0779

EU - 152

HALF-LIFE 12.70 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9469	.8966	.8490	.8039	.7612	.7207	.6825	.6462	.6119
10.0	.5794	.5486	.5195	.4919	.4658	.4410	.4176	.3954	.3744	.3545
20.0	.3357	.3179	.3010	.2850	.2699	.2555	.2419	.2291	.2169	.2054
30.0	.1945	.1842	.1744	.1651	.1563	.1480	.1402	.1327	.1257	.1190
40.0	.1127	.1067	.1010	.0957	.0906	.0858	.0812	.0769	.0728	.0690

EU - 154

HALF-LIFE 16.00 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9964	.9929	.9894	.9859	.9824	.9789	.9754	.9719	.9685
300.0	.9650	.9616	.9582	.9548	.9514	.9480	.9446	.9413	.9379	.9346
600.0	.9313	.9280	.9247	.9214	.9181	.9148	.9116	.9083	.9051	.9019
900.0	.8987	.8955	.8923	.8891	.8860	.8828	.8797	.8766	.8734	.8703
1200.0	.8673	.8642	.8611	.8580	.8550	.8519	.8489	.8459	.8429	.8399
1500.0	.8369	.8339	.8310	.8280	.8251	.8221	.8192	.8163	.8134	.8105
1800.0	.8076	.8048	.8019	.7491	.7962	.7934	.7906	.7878	.7850	.7822
2100.0	.7794	.7766	.7739	.7711	.7684	.7656	.7629	.7602	.7575	.7548
2400.0	.7521	.7494	.7468	.7441	.7415	.7389	.7362	.7336	.7310	.7284
2700.0	.7258	.7232	.7207	.7181	.7155	.7130	.7105	.7079	.7054	.7029
3000.0	.7004	.6979	.6955	.6930	.6905	.6881	.6856	.6832	.6808	.6783
3300.0	.6759	.6735	.6711	.6687	.6664	.6640	.6616	.6593	.6569	.6546
3600.0	.6523	.6500	.6477	.6453	.6431	.6408	.6385	.6362	.6340	.6317
3900.0	.6295	.6272	.6250	.6228	.6206	.6184	.6162	.6140	.6118	.6096
4200.0	.6074	.6053	.6031	.6010	.5989	.5967	.5946	.5925	.5904	.5883
4500.0	.5862	.5841	.5820	.5800	.5779	.5759	.5738	.5718	.5697	.5677
4800.0	.5657	.5637	.5617	.5597	.5577	.5557	.5537	.5518	.5498	.5478
5100.0	.5459	.5440	.5420	.5401	.5382	.5363	.5344	.5325	.5306	.5287
5400.0	.5268	.5249	.5231	.5212	.5194	.5175	.5157	.5138	.5120	.5102
5700.0	.5084	.5066	.5048	.5030	.5012	.4994	.4976	.4959	.4941	.4923
6000.0	.4906	.4889	.4871	.4854	.4837	.4819	.4802	.4785	.4768	.4751
6300.0	.4734	.4718	.4701	.4684	.4667	.4651	.4634	.4618	.4601	.4585
6600.0	.4569	.4552	.4536	.4520	.4504	.4488	.4472	.4456	.4440	.4425
6900.0	.4409	.4393	.4378	.4362	.4347	.4331	.4316	.4300	.4285	.4270
7200.0	.4255	.4240	.4224	.4209	.4195	.4180	.4165	.4150	.4135	.4120
7500.0	.4106	.4091	.4077	.4062	.4048	.4033	.4019	.4005	.3991	.3976
7800.0	.3962	.3948	.3934	.3920	.3906	.3892	.3878	.3865	.3851	.3837
8100.0	.3824	.3810	.3796	.3783	.3770	.3756	.3743	.3730	.3716	.3703
8400.0	.3690	.3677	.3664	.3651	.3638	.3625	.3612	.3599	.3586	.3574
8700.0	.3561	.3548	.3536	.3523	.3510	.3498	.3486	.3473	.3461	.3449
9000.0	.3436	.3424	.3412	.3400	.3388	.3376	.3364	.3352	.3340	.3328
9300.0	.3316	.3304	.3293	.3281	.3269	.3258	.3246	.3234	.3223	.3211
9600.0	.3200	.3189	.3177	.3166	.3155	.3144	.3132	.3121	.3110	.3099
9900.0	.3088	.3077	.3066	.3055	.3044	.3034	.3023	.3012	.3001	.2991
10200.0	.2980	.2969	.2959	.2948	.2938	.2927	.2917	.2907	.2896	.2886
10500.0	.2876	.2866	.2855	.2845	.2835	.2825	.2815	.2805	.2795	.2785
10800.0	.2775	.2765	.2756	.2746	.2736	.2726	.2717	.2707	.2697	.2688
11100.0	.2678	.2669	.2659	.2650	.2640	.2631	.2622	.2612	.2603	.2594
11400.0	.2584	.2575	.2566	.2557	.2548	.2539	.2530	.2521	.2512	.2503
11700.0	.2494	.2485	.2476	.2468	.2459	.2450	.2441	.2433	.2424	.2415
12000.0	.2407	.2398	.2390	.2381	.2373	.2364	.2356	.2348	.2339	.2331
12300.0	.2323	.2314	.2306	.2298	.2290	.2282	.2274	.2265	.2257	.2249
12600.0	.2241	.2233	.2225	.2218	.2210	.2202	.2194	.2186	.2178	.2171
12900.0	.2163	.2155	.2148	.2140	.2132	.2125	.2117	.2110	.2102	.2095
13200.0	.2087	.2080	.2073	.2065	.2058	.2050	.2043	.2036	.2029	.2021

EU - 154

HALF-LIFE 16.00 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
13500.0	.2014	.2007	.2000	.1993	.1986	.1979	.1972	.1965	.1958	.1951
13800.0	.1944	.1937	.1930	.1923	.1916	.1910	.1903	.1896	.1889	.1883
14100.0	.1876	.1869	.1863	.1856	.1849	.1843	.1836	.1830	.1823	.1817
14400.0	.1810	.1804	.1797	.1791	.1785	.1778	.1772	.1766	.1759	.1753
14700.0	.1747	.1741	.1735	.1728	.1722	.1716	.1710	.1704	.1698	.1692
15000.0	.1686	.1680	.1674	.1668	.1662	.1656	.1650	.1644	.1638	.1633
15300.0	.1627	.1621	.1615	.1610	.1604	.1598	.1592	.1587	.1581	.1576
15600.0	.1570	.1564	.1559	.1553	.1548	.1542	.1537	.1531	.1526	.1520
15900.0	.1515	.1510	.1504	.1499	.1494	.1488	.1483	.1478	.1472	.1467
16200.0	.1462	.1457	.1452	.1446	.1441	.1436	.1431	.1426	.1421	.1416
16500.0	.1411	.1406	.1401	.1396	.1391	.1386	.1381	.1376	.1371	.1366
16800.0	.1362	.1357	.1352	.1347	.1342	.1337	.1333	.1328	.1323	.1319
17100.0	.1314	.1309	.1305	.1300	.1295	.1291	.1286	.1282	.1277	.1272
17400.0	.1268	.1263	.1259	.1254	.1250	.1246	.1241	.1237	.1232	.1228
17700.0	.1224	.1219	.1215	.1211	.1206	.1202	.1198	.1193	.1189	.1185
18000.0	.1181	.1177	.1172	.1168	.1164	.1160	.1156	.1152	.1148	.1144
18300.0	.1139	.1135	.1131	.1127	.1123	.1119	.1115	.1111	.1107	.1104
18600.0	.1100	.1096	.1092	.1088	.1084	.1080	.1076	.1073	.1069	.1065
18900.0	.1061	.1057	.1054	.1050	.1046	.1042	.1039	.1035	.1031	.1028
19200.0	.1024	.1020	.1017	.1013	.1010	.1006	.1002	.0999	.0995	.0992
19500.0	.0988	.0985	.0981	.0978	.0974	.0971	.0967	.0964	.0960	.0957
19800.0	.0954	.0950	.0947	.0944	.0940	.0937	.0933	.0930	.0927	.0924
20100.0	.0920	.0917	.0914	.0911	.0907	.0904	.0901	.0898	.0894	.0891
20400.0	.0888	.0885	.0882	.0879	.0876	.0872	.0869	.0866	.0863	.0860
20700.0	.0857	.0854	.0851	.0848	.0845	.0842	.0839	.0836	.0833	.0830
21000.0	.0827	.0824	.0821	.0818	.0815	.0812	.0810	.0807	.0804	.0801
21300.0	.0798	.0795	.0792	.0790	.0787	.0784	.0781	.0778	.0776	.0773

EU - 154

HALF-LIFE 16.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9576	.9170	.8781	.8409	.8052	.7711	.7384	.7071	.6771
10.0	.6484	.6209	.5946	.5694	.5453	.5221	.5000	.4788	.4585	.4391
20.0	.4204	.4026	.3856	.3692	.3536	.3386	.3242	.3105	.2973	.2847
30.0	.2726	.2611	.2500	.2394	.2293	.2195	.2102	.2013	.1928	.1846
40.0	.1768	.1693	.1621	.1552	.1487	.1423	.1363	.1305	.1250	.1197
50.0	.1146	.1098	.1051	.1007	.0964	.0923	.0884	.0846	.0811	.0776

EU - 155

HALF-LIFE 1.81 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9948	.9896	.9844	.9792	.9741	.9690	.9639	.9589	.9539
50.0	.9489	.9439	.9390	.9341	.9292	.9243	.9195	.9147	.9099	.9051
100.0	.9004	.8957	.8910	.8863	.8817	.8771	.8725	.8679	.8634	.8589
150.0	.8544	.8499	.8455	.8410	.8366	.8323	.8279	.8236	.8193	.8150
200.0	.8107	.8065	.8023	.7981	.7939	.7897	.7856	.7815	.7774	.7733
250.0	.7693	.7653	.7613	.7573	.7533	.7494	.7454	.7415	.7377	.7338
300.0	.7300	.7261	.7223	.7186	.7148	.7111	.7073	.7036	.7000	.6963
350.0	.6927	.6890	.6854	.6818	.6783	.6747	.6712	.6677	.6642	.6607
400.0	.6573	.6538	.6504	.6470	.6436	.6402	.6369	.6336	.6302	.6269
450.0	.6237	.6204	.6172	.6139	.6107	.6075	.6043	.6012	.5980	.5949

EU - 155

HALF-LIFE 1.81 YEARS CALCULATION INTERVAL 5.0 DAYS

	DAYS									
DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
500.0	.5918	.5887	.5856	.5826	.5795	.5765	.5735	.5705	.5675	.5645
550.0	.5616	.5586	.5557	.5528	.5499	.5470	.5442	.5413	.5385	.5357
600.0	.5329	.5301	.5273	.5245	.5218	.5191	.5163	.5136	.5110	.5083
650.0	.5056	.5030	.5003	.4977	.4951	.4925	.4900	.4874	.4848	.4823
700.0	.4798	.4773	.4748	.4723	.4698	.4674	.[illegible]649	.4625	.4601	.4577
750.0	.4553	.4529	.4505	.4481	.4458	.4435	.4412	.4388	.4365	.4343
800.0	.4320	.4297	.4275	.4252	.4230	.4208	.4186	.4164	.4142	.4121
850.0	.4099	.4078	.4056	.4035	.4014	.3993	.3972	.3951	.3931	.3910
900.0	.3890	.3869	.3849	.3829	.3809	.3789	.3769	.3749	.3730	.3710
950.0	.3691	.3672	.3652	.3633	.3614	.3595	.3576	.3558	.3539	.3521
1000.0	.3502	.3484	.3466	.3448	.3429	.3412	.3394	.3376	.3358	.3341
1050.0	.3323	.3306	.3289	.3271	.3254	.3237	.3220	.3203	.3187	.3170
1100.0	.3153	.3137	.3120	.3104	.3088	.3072	.3056	.3040	.3024	.3008
1150.0	.2992	.2977	.2961	.2946	.2930	.2915	.2900	.2884	.2869	.2854
1200.0	.2839	.2824	.2810	.2795	.2780	.2766	.2751	.2737	.2723	.2708
1250.0	.2694	.2680	.2666	.2652	.2638	.2624	.2611	.2597	.2583	.2570
1300.0	.2556	.2543	.2530	.2517	.2503	.2490	.2477	.2464	.2451	.2439
1350.0	.2426	.2413	.2401	.2388	.2375	.2363	.2351	.2338	.2326	.2314
1400.0	.2302	.2290	.2278	.2266	.2254	.2242	.2231	.2219	.2207	.2196
1450.0	.2184	.2173	.2161	.2150	.2139	.2128	.2117	.2105	.2094	.2083
1500.0	.2073	.2062	.2051	.2040	.2030	.2019	.2008	.1998	.1987	.1977
1550.0	.1967	.1956	.1946	.1936	.1926	.1916	.1906	.1896	.1886	.1876
1600.0	.1866	.1856	.1847	.1837	.1827	.1818	.1808	.1799	.1789	.1780
1650.0	.1771	.1762	.1752	.1743	.1734	.1725	.1716	.1707	.1698	.1689
1700.0	.1680	.1671	.1663	.1654	.1645	.1637	.1628	.1620	.1611	.1603
1750.0	.1594	.1586	.1578	.1570	.1561	.1553	.1545	.1537	.1529	.1521
1800.0	.1513	.1505	.1497	.1489	.1482	.1474	.1466	.1458	.1451	.1443
1850.0	.1436	.1428	.1421	.1413	.1406	.1398	.1391	.1384	.1377	.1369
1900.0	.1362	.1355	.1348	.1341	.1334	.1327	.1320	.1313	.1306	.1299
1950.0	.1293	.1286	.1279	.1272	.1266	.1259	.1253	.1246	.1239	.1233
2000.0	.1227	.1220	.1214	.1207	.1201	.1195	.1189	.1182	.1176	.1170
2050.0	.1164	.1158	.1152	.1146	.1140	.1134	.1128	.1122	.1116	.1110
2100.0	.1104	.1099	.1093	.1087	.1081	.1076	.1070	.1065	.1059	.1053
2150.0	.1048	.1042	.1037	.1032	.1026	.1021	.1015	.1010	.1005	.1000
2200.0	.0994	.0989	.0984	.0979	.0974	.0969	.0964	.0959	.0954	.0949
2250.0	.0944	.0939	.0934	.0929	.0924	.0919	.0914	.0910	.0905	.0900
2300.0	.0895	.0891	.0886	.0881	.0877	.0872	.0868	.0863	.0859	.0854
2350.0	.0850	.0845	.0841	.0836	.0832	.0828	.0823	.0819	.0815	.0810
2400.0	.0806	.0802	.0798	.0794	.0789	.0785	.0781	.0777	.0773	.0769

GD - 153

HALF-LIFE 242.00 DAYS CALCULATION INTERVAL 48.0 HOURS

	HOURS											
DAYS	0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
0.00	1.0000	.9943	.9886	.9830	.9773	.9718	.9662	.9607	.9552	.9498	.9443	.9389
24.00	.9336	.9282	.9229	.9177	.9124	.9072	.9020	.8969	.8917	.8867	.8816	.8766
48.00	.8715	.8666	.8616	.8567	.8518	.8469	.8421	.8373	.8325	.8278	.8230	.8183
72.00	.8136	.8090	.8044	.7998	.7952	.7907	.7862	.7817	.7772	.7728	.7683	.7640
96.00	.7596	.7553	.7509	.7467	.7424	.7381	.7339	.7297	.7256	.7214	.7173	.7132
120.00	.7091	.7051	.7011	.6971	.6931	.6891	.6852	.6813	.6774	.6735	.6697	.6658
144.00	.6620	.6582	.6545	.6507	.6470	.6433	.6397	.6360	.6324	.6288	.6252	.6216
168.00	.6180	.6145	.6110	.6075	.6040	.6006	.5972	.5938	.5904	.5870	.5836	.5803
192.00	.5770	.5737	.5704	.5672	.5639	.5607	.5575	.5543	.5511	.5480	.5449	.5418
216.00	.5387	.5356	.5325	.5295	.5265	.5234	.5205	.5175	.5145	.5116	.5087	.5058

GD - 153

HALF-LIFE 242.00 DAYS CALCULATION INTERVAL 48.0 HOURS

DAYS	HOURS 0.0	48.0	96.0	144.0	192.0	240.0	288.0	336.0	384.0	432.0	480.0	528.0
240.00	.5029	.5000	.4971	.4943	.4915	.4887	.4859	.4831	.4803	.4776	.4749	.4722
264.00	.4695	.4668	.4641	.4615	.4588	.4562	.4536	.4510	.4484	.4459	.4433	.4408
288.00	.4383	.4358	.4333	.4308	.4283	.4259	.4235	.4211	.4186	.4163	.4139	.4115
312.00	.4092	.4068	.4045	.4022	.3999	.3976	.3953	.3931	.3908	.3886	.3864	.3842
336.00	.3820	.3798	.3776	.3755	.3733	.3712	.3691	.3670	.3649	.3628	.3607	.3587
360.00	.3566	.3546	.3525	.3505	.3485	.3465	.3446	.3426	.3406	.3387	.3368	.3348
384.00	.3329	.3310	.3291	.3272	.3254	.3235	.3217	.3198	.3180	.3162	.3144	.3126
408.00	.3108	.3090	.3073	.3055	.3038	.3020	.3003	.2986	.2969	.2952	.2935	.2918
432.00	.2902	.2885	.2868	.2852	.2836	.2820	.2803	.2787	.2772	.2756	.2740	.2724
456.00	.2709	.2693	.2678	.2663	.2647	.2632	.2617	.2602	.2587	.2573	.2558	.2543
480.00	.2529	.2514	.2500	.2486	.2472	.2457	.2443	.2429	.2416	.2402	.2388	.2374
504.00	.2361	.2347	.2334	.2321	.2307	.2294	.2281	.2268	.2255	.2242	.2229	.2217
528.00	.2204	.2191	.2179	.2166	.2154	.2142	.2130	.2117	.2105	.2093	.2081	.2069
552.00	.2058	.2046	.2034	.2023	.2011	.1999	.1988	.1977	.1965	.1954	.1943	.1932
576.00	.1921	.1910	.1899	.1888	.1877	.1867	.1856	.1845	.1835	.1824	.1814	.1804
600.00	.1793	.1783	.1773	.1763	.1753	.1743	.1733	.1723	.1713	.1703	.1693	.1684
624.00	.1674	.1665	.1655	.1646	.1636	.1627	.1618	.1608	.1599	.1590	.1581	.1572
648.00	.1563	.1554	.1545	.1536	.1528	.1519	.1510	.1501	.1493	.1484	.1476	.1467
672.00	.1459	.1451	.1442	.1434	.1426	.1418	.1410	.1402	.1394	.1386	.1378	.1370
696.00	.1362	.1354	.1347	.1339	.1331	.1324	.1316	.1309	.1301	.1294	.1286	.1279
720.00	.1272	.1264	.1257	.1250	.1243	.1236	.1229	.1222	.1215	.1208	.1201	.1194
744.00	.1187	.1180	.1174	.1167	.1160	.1154	.1147	.1141	.1134	.1128	.1121	.1115
768.00	.1108	.1102	.1096	.1089	.1083	.1077	.1071	.1065	.1059	.1053	.1047	.1041
792.00	.1035	.1029	.1023	.1017	.1011	.1005	.1000	.0994	.0988	.0983	.0977	.0972
816.00	.0966	.0960	.0955	.0949	.0944	.0939	.0933	.0928	.0923	.0917	.0912	.0907
840.00	.0902	.0897	.0892	.0886	.0881	.0876	.0871	.0866	.0861	.0856	.0852	.0847
864.00	.0842	.0837	.0832	.0828	.0823	.0818	.0813	.0809	.0804	.0800	.0795	.0790

TM - 170

HALF-LIFE 134.00 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9948	.9897	.9846	.9795	.9745	.9694	.9644	.9595	.9545	.9496	.9447
12.00	.9398	.9350	.9301	.9253	.9206	.9158	.9111	.9064	.9017	.8971	.8924	.8878
24.00	.8833	.8787	.8742	.8697	.8652	.8607	.8563	.8518	.8474	.8431	.8387	.8344
36.00	.8301	.8258	.8215	.8173	.8131	.8089	.8047	.8006	.7964	.7923	.7882	.7842
48.00	.7801	.7761	.7721	.7681	.7642	.7602	.7563	.7524	.7485	.7446	.7408	.7370
60.00	.7332	.7294	.7256	.7219	.7182	.7145	.7108	.7071	.7035	.6998	.6962	.6926
72.00	.6891	.6855	.6820	.6784	.6749	.6715	.6680	.6645	.6611	.6577	.6543	.6509
84.00	.6476	.6442	.6409	.6376	.6343	.6310	.6278	.6246	.6213	.6181	.6149	.6118
96.00	.6086	.6055	.6023	.5992	.5961	.5931	.5900	.5870	.5839	.5809	.5779	.5749
108.00	.5720	.5690	.5661	.5632	.5603	.5574	.5545	.5516	.5488	.5460	.5431	.5403
120.00	.5376	.5348	.5320	.5293	.5265	.5238	.5211	.5184	.5158	.5131	.5105	.5078
132.00	.5052	.5026	.5000	.4974	.4949	.4923	.4898	.4872	.4847	.4822	.4797	.4773
144.00	.4748	.4723	.4699	.4675	.4651	.4627	.4603	.4579	.4555	.4532	.4509	.4485
156.00	.4462	.4439	.4416	.4393	.4371	.4348	.4326	.4303	.4281	.4259	.4237	.4215
168.00	.4194	.4172	.4150	.4129	.4108	.4087	.4065	.4044	.4024	.4003	.3982	.3962
180.00	.3941	.3921	.3901	.3881	.3861	.3841	.3821	.3801	.3781	.3762	.3743	.3723
192.00	.3704	.3685	.3666	.3647	.3628	.3609	.3591	.3572	.3554	.3536	.3517	.3499
204.00	.3481	.3463	.3445	.3427	.3410	.3392	.3375	.3357	.3340	.3323	.3306	.3289
216.00	.3272	.3255	.3238	.3221	.3205	.3188	.3172	.3155	.3139	.3123	.3107	.3091
228.00	.3075	.3059	.3043	.3027	.3012	.2996	.2981	.2965	.2950	.2935	.2920	.2905

TM - 170

HALF-LIFE 134.00 DAYS CALCULATION INTERVAL 24.0 HOURS

	HOURS											
DAYS	0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
240.00	.2890	.2875	.2860	.2845	.2830	.2816	.2801	.2787	.2772	.2758	.2744	.2730
252.00	.2716	.2702	.2688	.2674	.2660	.2646	.2633	.2619	.2606	.2592	.2579	.2566
264.00	.2552	.2539	.2526	.2513	.2500	.2487	.2474	.2462	.2449	.2436	.2424	.2411
276.00	.2399	.2386	.2374	.2362	.2350	.2337	.2325	.2313	.2301	.2290	.2278	.2266
288.00	.2254	.2243	.2231	.2220	.2208	.2197	.2185	.2174	.2163	.2152	.2141	.2130
300.00	.2119	.2108	.2097	.2086	.2075	.2065	.2054	.2043	.2033	.2022	.2012	.2001
312.00	.1991	.1981	.1971	.1960	.1950	.1940	.1930	.1920	.1910	.1901	.1891	.1881
324.00	.1871	.1862	.1852	.1842	.1833	.1823	.1814	.1805	.1795	.1786	.1777	.1768
336.00	.1759	.1750	.1741	.1732	.1723	.1714	.1705	.1696	.1687	.1679	.1670	.1661
348.00	.1653	.1644	.1636	.1627	.1619	.1611	.1602	.1594	.1586	.1578	.1569	.1561
360.00	.1553	.1545	.1537	.1529	.1522	.1514	.1506	.1498	.1490	.1483	.1475	.1467
372.00	.1460	.1452	.1445	.1437	.1430	.1423	.1415	.1408	.1401	.1393	.1386	.1379
384.00	.1372	.1365	.1358	.1351	.1344	.1337	.1330	.1323	.1316	.1310	.1303	.1296
396.00	.1289	.1283	.1276	.1270	.1263	.1256	.1250	.1244	.1237	.1231	.1224	.1218
408.00	.1212	.1206	.1199	.1193	.1187	.1181	.1175	.1169	.1163	.1157	.1151	.1145
420.00	.1139	.1133	.1127	.1121	.1116	.1110	.1104	.1098	.1093	.1087	.1081	.1076
432.00	.1070	.1065	.1059	.1054	.1048	.1043	.1038	.1032	.1027	.1022	.1016	.1011
444.00	.1006	.1001	.0996	.0990	.0985	.0980	.0975	.0970	.0965	.0960	.0955	.0950
456.00	.0945	.0940	.0936	.0931	.0926	.0921	.0916	.0912	.0907	.0902	.0898	.0893
468.00	.0888	.0884	.0879	.0875	.0870	.0866	.0861	.0857	.0852	.0848	.0844	.0839
480.00	.0835	.0831	.0826	.0822	.0818	.0814	.0809	.0805	.0801	.0797	.0793	.0789

YB - 169

HALF-LIFE 31.80 DAYS CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
0.00	1.0000	.9946	.9892	.9838	.9784	.9731	.9678	.9626	.9573	.9521	.9470	.9418
3.00	.9367	.9316	.9265	.9215	.9165	.9115	.9066	.9016	.8967	.8919	.8870	.8822
6.00	.8774	.8726	.8679	.8632	.8585	.8538	.8492	.8446	.8400	.8354	.8309	.8264
9.00	.8219	.8174	.8130	.8085	.8041	.7998	.7954	.7911	.7868	.7825	.7783	.7741
12.00	.7698	.7657	.7615	.7574	.7532	.7492	.7451	.7410	.7370	.7330	.7290	.7251
15.00	.7211	.7172	.7133	.7094	.7056	.7017	.6979	.6941	.6904	.6866	.6829	.6792
18.00	.6755	.6718	.6681	.6645	.6609	.6573	.6537	.6502	.6467	.6431	.6396	.6362
21.00	.6327	.6293	.6259	.6225	.6191	.6157	.6124	.6090	.6057	.6024	.5992	.5959
24.00	.5927	.5894	.5862	.5831	.5799	.5767	.5736	.5705	.5674	.5643	.5612	.5582
27.00	.5551	.5521	.5491	.5461	.5432	.5402	.5373	.5344	.5315	.5286	.5257	.5228
30.00	.5200	.5172	.5144	.5116	.5088	.5060	.5033	.5005	.4978	.4951	.4924	.4898
33.00	.4871	.4844	.4818	.4792	.4766	.4740	.4714	.4689	.4663	.4638	.4613	.4588
36.00	.4563	.4538	.4513	.4489	.4464	.4440	.4416	.4392	.4368	.4344	.4321	.4297
39.00	.4274	.4251	.4227	.4204	.4182	.4159	.4136	.4114	.4091	.4069	.4047	.4025
42.00	.4003	.3981	.3960	.3938	.3917	.3896	.3874	.3853	.3832	.3812	.3791	.3770
45.00	.3750	.3729	.3709	.3689	.3669	.3649	.3629	.3610	.3590	.3570	.3551	.3[illegible]2
48.00	.3512	.3493	.3474	.3456	.3437	.3418	.3400	.3381	.3363	.3344	.3326	.3308
51.00	.3290	.3272	.3254	.3237	.3219	.3202	.3184	.3167	.3150	.3133	.3116	.3099
54.00	.3082	.3065	.3048	.3032	.3015	.2999	.2983	.2967	.2950	.2934	.2918	.2903
57.00	.2887	.2871	.2856	.2840	.2825	.2809	.2794	.2779	.2764	.2749	.2734	.2719
60.00	.2704	.2689	.2675	.2660	.2646	.2631	.2617	.2603	.2589	.2575	.2561	.2547
63.00	.2533	.2519	.2505	.2492	.2478	.2465	.2451	.2438	.2425	.2412	.2399	.2386
66.00	.2373	.2360	.2347	.2334	.2321	.2309	.2296	.2284	.2271	.2259	.2247	.2235
69.00	.2222	.2210	.2198	.2186	.2174	.2163	.2151	.2139	.2128	.2116	.2105	.2093
72.00	.2082	.2070	.2059	.2048	.2037	.2026	.2015	.2004	.1993	.1982	.1971	.1961

YB - 169

HALF-LIFE 31.80 DAYS — CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
75.00	.1950	.1939	.1929	.1918	.1908	.1898	.1887	.1877	.1867	.1857	.1847	.1837
78.00	.1827	.1817	.1807	.1797	.1787	.1777	.1768	.1758	.1749	.1739	.1730	.1720
81.00	.1711	.1702	.1692	.1683	.1674	.1665	.1656	.1647	.1638	.1629	.1620	.1611
84.00	.1603	.1594	.1585	.1577	.1568	.1560	.1551	.1543	.1534	.1526	.1518	.1509
87.00	.1501	.1493	.1485	.1477	.1469	.1461	.1453	.1445	.1437	.1429	.1422	.1414
90.00	.1406	.1398	.1391	.1383	.1376	.1368	.1361	.1354	.1346	.1339	.1332	.1324
93.00	.1317	.1310	.1303	.1296	.1289	.1282	.1275	.1268	.1261	.1254	.1247	.1241
96.00	.1234	.1227	.1220	.1214	.1207	.1201	.1194	.1188	.1181	.1175	.1168	.1162
99.00	.1156	.1149	.1143	.1137	.1131	.1125	.1118	.1112	.1106	.1100	.1094	.1088
102.00	.1083	.1077	.1071	.1065	.1059	.1053	.1048	.1042	.1036	.1031	.1025	.1020
105.00	.1014	.1008	.1003	.0998	.0992	.0987	.0981	.0976	.0971	.0965	.0960	.0955
108.00	.0950	.0945	.0940	.0934	.0929	.0924	.0919	.0914	.0909	.0904	.0899	.0895
111.00	.0890	.0885	.0880	.0875	.0870	.0866	.0861	.0856	.0852	.0847	.0842	.0838
114.00	.0833	.0829	.0824	0820	.0815	.0811	.0807	.0802	.0798	.0793	.0789	.0785

LU - 177

HALF-LIFE 6.74 DAYS — CALCULATION INTERVAL 1.0 HOURS

	HOURS											
DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9957	.9915	.9872	.9830	.9788	.9746	.9705	.9663	.9622	.9581	.9540
.50	.9499	.9458	.9418	.9377	.9337	.9297	.9258	.9218	.9179	.9139	.9100	.9061
1.00	.9023	.8984	.8946	.8907	.8869	.8831	.8794	.8756	.8719	.8681	.8644	.8607
1.50	.8570	.8534	.8497	.8461	.8425	.8389	.8353	.8317	.8282	.8246	.8211	.8176
2.00	.8141	.8106	.8071	.8037	.8003	.7968	.7934	.7900	.7867	.7833	.7799	.7766
2.50	.7733	.7700	.7667	.7634	.7601	.7569	.7537	.7504	.7472	.7440	.7409	.7377
3.00	.7345	.7314	.7283	.7251	.7220	.7190	.7159	.7128	.7098	.7067	.7037	.7007
3.50	.6977	.6947	.6918	.6888	.6859	.6829	.6800	.6771	.6742	.6713	.6685	.6656
4.00	.6627	.6599	.6571	.6543	.6515	.6487	.6459	.6432	.6404	.6377	.6349	.6322
4.50	.6295	.6268	.6242	.6215	.6188	.6162	.6135	.6109	.6083	.6057	.6031	.6005
5.00	.5980	.5954	.5929	.5903	.5878	.5853	.5828	.5803	.5778	.5754	.5729	.5704
5.50	.5680	.5656	.5632	.5608	.5584	.5560	.5536	.5512	.5489	.5465	.5442	.5419
6.00	.5395	.5372	.5349	.5326	.5304	.5281	.5258	.5236	.5214	.5191	.5169	.5147
6.50	.5125	.5103	.5081	.5059	.5038	.5016	.4995	.4974	.4952	.4931	.4910	.4889
7.00	.4868	.4847	.4827	.4806	.4785	.4765	.4745	.4724	.4704	.4684	.4664	.4644
7.50	.4624	.4604	.4585	.4565	.4546	.4526	.4507	.4487	.4468	.4449	.4430	.4411
8.00	.4392	.4374	.4355	.4336	.4318	.4299	.4281	.4263	.4244	.4226	.4208	.4190
8.50	.4172	.4154	.4137	.4119	.4101	.4084	.4066	.4049	.4032	.4014	.3997	.3980
9.00	.3963	.3946	.3929	.3912	.3896	.3879	.3862	.3846	.3830	.3813	.3797	.3781
9.50	.3764	.3748	.3732	.3716	.3700	.3685	.3669	.3653	.3638	.3622	.3607	.3591
10.00	.3576	.3560	.3545	.3530	.3515	.3500	.3485	.3470	.3455	.3440	.3426	.3411
10.50	.3397	.3382	.3368	.3353	.3339	.3325	.3310	.3296	.3282	.3268	.3254	.3240
11.00	.3226	.3213	.3199	.3185	.3171	.3158	.3144	.3131	.3118	.3104	.3091	.3078
11.50	.3065	.3051	.3038	.3025	.3013	.3000	.2987	.2974	.2961	.2949	.2936	.2923
12.00	.2911	.2899	.2886	.2874	.2862	.2849	.2837	.2825	.2813	.2801	.2789	.2777
12.50	.2765	.2753	.2741	.2730	.2718	.2706	.2695	.2683	.2672	.2660	.2649	.2638
13.00	.2627	.2615	.2604	.2593	.2582	.2571	.2560	.2549	.2538	.2527	.2516	.2506
13.50	.2495	.2484	.2474	.2463	.2452	.2442	.2432	.2421	.2411	.2400	.2390	.2380
14.00	.2370	.2360	.2350	.2340	.2330	.2320	.2310	.2300	.2290	.2280	.2270	.2261
14.50	.2251	.2241	.2232	.2222	.2213	.2203	.2194	.2185	.2175	.2166	.2157	.2147
15.00	.2138	.2129	.2120	.2111	.2102	.2093	.2084	.2075	.2066	.2057	.2049	.2040
15.50	.2031	.2022	.2014	.2005	.1997	.1988	.1979	.1971	.1963	.1954	.1946	.1938
16.00	.1929	.1921	.1913	.1905	.1896	.1888	.1880	.1872	.1864	.1856	.1848	.1840
16.50	.1833	.1825	.1817	.1809	.1801	.1794	.1786	.1778	.1771	.1763	.1756	.1748
17.00	.1741	.1733	.1726	.1718	.1711	.1704	.1697	.1689	.1682	.1675	.1668	.1661

LU - 177

HALF-LIFE 6.74 DAYS CALCULATION INTERVAL 1.0 HOURS

	HOURS											
DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
17.50	.1653	.1646	.1639	.1632	.1625	.1618	.1611	.1605	.1598	.1591	.1584	.1577
18.00	.1571	.1564	.1557	.1551	.1544	.1537	.1531	.1524	.1518	.1511	.1505	.1498
18.50	.1492	.1485	.1479	.1473	.1467	.1460	.1454	.1448	.1442	.1435	.1429	.1423
19.00	.1417	.1411	.1405	.1399	.1393	.1387	.1381	.1375	.1369	.1363	.1358	.1352
19.50	.1346	.1340	.1335	.1329	.1323	.1318	.1312	.1306	.1301	.1295	.1290	.1284
20.00	.1279	.1273	.1268	.1262	.1257	.1252	.1246	.1241	.1236	.1230	.1225	.1220
20.50	.1215	.1209	.1204	.1199	.1194	.1189	.1184	.1179	.1174	.1169	.1164	.1159
21.00	.1154	.1149	.1144	.1139	.1134	.1129	.1124	.1120	.1115	.1110	.1105	.1101
21.50	.1096	.1091	.1086	.1082	.1077	.1073	.1068	.1063	.1059	.1054	.1050	.1045
22.00	.1041	.1036	.1032	.1028	.1023	.1019	.1014	.1010	.1006	.1002	.0997	.0993
22.50	.0989	.0985	.0980	.0976	.0972	.0968	.0964	.0960	.0955	.0951	.0947	.0943
23.00	.0939	.0935	.0931	.0927	.0923	.0919	.0915	.0911	.0908	.0904	.0900	.0896
23.50	.0892	.0888	.0884	.0881	.0877	.0873	.0869	.0866	.0862	.0858	.0855	.0851
24.00	.0847	.0844	.0840	.0837	.0833	.0829	.0826	.0822	.0819	.0815	.0812	.0808
24.50	.0805	.0801	.0798	.0795	.0791	.0788	.0784	.0781	.0778	.0774	.0771	.0768

HF - 181

HALF-LIFE 42.50 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9946	.9892	.9838	.9785	.9732	.9679	.9627	.9574	.9522	.9471	.9420
4.00	.9368	.9318	.9267	.9217	.9167	.9117	.9068	.9019	.8970	.8921	.8873	.8825
8.00	.8777	.8729	.8682	.8635	.8588	.8541	.8495	.8449	.8403	.8358	.8312	.8267
12.00	.8222	.8178	.8134	.8089	.8046	.8002	.7959	.7915	.7873	.7830	.7787	.7745
16.00	.7703	.7661	.7620	.7579	.7537	.7497	.7456	.7416	.7375	.7335	.7296	.7256
20.00	.7217	.7178	.7139	.7100	.7061	.7023	.6985	.6947	.6910	.6872	.6835	.6798
24.00	.6761	.6724	.6688	.6652	.6615	.6580	.6544	.6508	.6473	.6438	.6403	.6368
28.00	.6334	.6300	.6265	.6231	.6198	.6164	.6131	.6097	.6064	.6031	.5999	.5966
32.00	.5934	.5902	.5870	.5838	.5806	.5775	.5743	.5712	.5681	.5651	.5620	.5589
36.00	.5559	.5529	.5499	.5469	.5440	.5410	.5381	.5352	.5323	.5294	.5265	.5236
40.00	.5208	.5180	.5152	.5124	.5096	.5068	.5041	.5014	.4986	.4959	.4933	.4906
44.00	.4879	.4853	.4826	.4800	.4774	.4748	.4723	.4697	.4672	.4646	.4621	.4596
48.00	.4571	.4546	.4522	.4497	.4473	.4448	.4424	.4400	.4376	.4353	.4329	.4306
52.00	.4282	.4259	.4236	.4213	.4190	.4168	.4145	.4122	.4100	.4078	.4056	.4034
56.00	.4012	.3990	.3969	.3947	.3926	.3904	.3883	.3862	.3841	.3820	.3800	.3779
60.00	.3759	.3738	.3718	.3698	.3678	.3658	.3638	.3618	.3599	.3579	.3560	.3540
64.00	.3521	.3502	.3483	.3464	.3445	.3427	.3408	.3390	.3371	.3353	.3335	.3317
68.00	.3299	.3281	.3263	.3245	.3228	.3210	.3193	.3176	.3158	.3141	.3124	.3107
72.00	.3090	.3074	.3057	.3040	.3024	.3008	.2991	.2975	.2959	.2943	.2927	.2911
76.00	.2895	.2880	.2864	.2848	.2833	.2818	.2802	.2787	.2772	.2757	.2742	.2727
80.00	.2712	.2698	.2683	.2669	.2654	.2640	.2625	.2611	.2597	.2583	.2569	.2555
84.00	.2541	.2527	.2514	.2500	.2486	.2473	.2460	.2446	.2433	.2420	.2407	.2394
88.00	.2381	.2368	.2355	.2342	.2329	.2317	.2304	.2292	.2279	.2267	.2255	.2242
92.00	.2230	.2218	.2206	.2194	.2182	.2170	.2159	.2147	.2135	.2124	.2112	.2101
96.00	.2089	.2078	.2067	.2056	.2044	.2033	.2022	.2011	.2000	.1990	.1979	.1968
100.00	.1957	.1947	.1936	.1926	.1915	.1905	.1895	.1884	.1874	.1864	.1854	.1844
104.00	.1834	.1824	.1814	.1804	.1794	.1785	.1775	.1765	.1756	.1746	.1737	.1727
108.00	.1718	.1709	.1699	.1690	.1681	.1672	.1663	.1654	.1645	.1636	.1627	.1618
112.00	.1610	.1601	.1592	.1583	.1575	.1566	.1558	.1549	.1541	.1533	.1524	.1516
116.00	.1508	.1500	.1492	.1483	.1475	.1467	.1459	.1452	.1444	.1436	.1428	.1420
120.00	.1413	.1405	.1397	.1390	.1382	.1375	.1367	.1360	.1353	.1345	.1338	.1331
124.00	.1323	.1316	.1309	.1302	.1295	.1288	.1281	.1274	.1267	.1260	.1253	.1247
128.00	.1240	.1233	.1226	.1220	.1213	.1207	.1200	.1194	.1187	.1181	.1174	.1168
132.00	.1162	.1155	.1149	.1143	.1137	.1130	.1124	.1118	.1112	.1106	.1100	.1094
136.00	.1088	.1082	.1076	.1071	.1065	.1059	.1053	.1048	.1042	.1036	.1031	.1025

HF - 181

HALF-LIFE 42.50 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
140.00	.1019	.1014	.1008	.1003	.0998	.0992	.0987	.0981	.0976	.0971	.0966	.0960
144.00	.0955	.0950	.0945	.0940	.0935	.0929	.0924	.0919	.0914	.0909	.0905	.0900
148.00	.0895	.0890	.0885	.0880	.0876	.0871	.0866	.0861	.0857	.0852	.0847	.0843
152.00	.0838	.0834	.0829	.0825	.0820	.0816	.0811	.0807	.0803	.0798	.0794	.0790

W - 181

HALF-LIFE 140.00 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9951	.9901	.9853	.9804	.9755	.9707	.9659	.9612	.9564	.9517	.9470
12.00	.9423	.9377	.9330	.9284	.9238	.9193	.9147	.9102	.9057	.9013	.8968	.8924
24.00	.8880	.8836	.8792	.8749	.8706	.8663	.8620	.8577	.8535	.8493	.8451	.8409
36.00	.8367	.8326	.8285	.8244	.8203	.8163	.8123	.8082	.8042	.8003	.7963	.7924
48.00	.7885	.7846	.7807	.7769	.7730	.7692	.7654	.7616	.7579	.7541	.7504	.7467
60.00	.7430	.7393	.7357	.7320	.7284	.7248	.7213	.7177	.7141	.7106	.7071	.7036
72.00	.7001	.6967	.6932	.6898	.6864	.6830	.6796	.6763	.6730	.6696	.6663	.6630
84.00	.6598	.6565	.6533	.6500	.6468	.6436	.6404	.6373	.6341	.6310	.6279	.6248
96.00	.6217	.6186	.6156	.6125	.6095	.6065	.6035	.6005	.5976	.5946	.5917	.5887
108.00	.5858	.5829	.5801	.5772	.5743	.5715	.5687	.5659	.5631	.5603	.5575	.5548
120.00	.5520	.5493	.5466	.5439	.5412	.5385	.5359	.5332	.5306	.5280	.5254	.5228
132.00	.5202	.5176	.5151	.5125	.5100	.5075	.5050	.5025	.5000	.4975	.4951	.4926
144.00	.4902	.4878	.4854	.4830	.4806	.4782	.4758	.4735	.4712	.4688	.4665	.4642
156.00	.4619	.4596	.4574	.4551	.4529	.4506	.4484	.4462	.4440	.4418	.4396	.4374
168.00	.4353	.4331	.4310	.4289	.4267	.4246	.4225	.4204	.4184	.4163	.4142	.4122
180.00	.4102	.4081	.4061	.4041	.4021	.4001	.3982	.3962	.3942	.3923	.3904	.3884
192.00	.3865	.3846	.3827	.3808	.3789	.3771	.3752	.3733	.3715	.3697	.3678	.3660
204.00	.3642	.3624	.3606	.3588	.3571	.3553	.3536	.3518	.3501	.3483	.3466	.3449
216.00	.3432	.3415	.3398	.3381	.3365	.3348	.3332	.3315	.3299	.3282	.3266	.3250
228.00	.3234	.3218	.3202	.3186	.3171	.3155	.3139	.3124	.3108	.3093	.3078	.3063
240.00	.3048	.3032	.3018	.3003	.2988	.2973	.2958	.2944	.2929	.2915	.2900	.2886
252.00	.2872	.2858	.2843	.2829	.2815	.2802	.2788	.2774	.2760	.2747	.2733	.2720
264.00	.2706	.2693	.2679	.2666	.2653	.2640	.2627	.2614	.2601	.2588	.2575	.2563
276.00	.2550	.2537	.2525	.2512	.2500	.2488	.2475	.2463	.2451	.2439	.2427	.2415
288.00	.2403	.2391	.2379	.2367	.2356	.2344	.2333	.2321	.2310	.2298	.2287	.2276
300.00	.2264	.2253	.2242	.2231	.2220	.2209	.2198	.2187	.2176	.2166	.2155	.2144
312.00	.2134	.2123	.2113	.2102	.2092	.2082	.2071	.2061	.2051	.2041	.2031	.2021
324.00	.2011	.2001	.1991	.1981	.1971	.1961	.1952	.1942	.1933	.1923	.1913	.1904
336.00	.1895	.1885	.1876	.1867	.1857	.1848	.1839	.1830	.1821	.1812	.1803	.1794
348.00	.1785	.1777	.1768	.1759	.1750	.1742	.1733	.1725	.1716	.1708	.1699	.1691
360.00	.1682	.1674	.1666	.1658	.1649	.1641	.1633	.1625	.1617	.1609	.1601	.1593
372.00	.1585	.1578	.1570	.1562	.1554	.1547	.1539	.1531	.1524	.1516	.1509	.1501
384.00	.1494	.1487	.1479	.1472	.1465	.1457	.1450	.1443	.1436	.1429	.1422	.1415
396.00	.1408	.1401	.1394	.1387	.1380	.1373	.1367	.1360	.1353	.1346	.1340	.1333
408.00	.1327	.1320	.1313	.1307	.1301	.1294	.1288	.1281	.1275	.1269	.1262	.1256
420.00	.1250	.1244	.1238	.1232	.1225	.1219	.1213	.1207	.1201	.1196	.1190	.1184
432.00	.1178	.1172	.1166	.1161	.1155	.1149	.1143	.1138	.1132	.1127	.1121	.1115
444.00	.1110	.1104	.1099	.1094	.1088	.1083	.1077	.1072	.1067	.1062	.1056	.1051
456.00	.1046	.1041	.1036	.1031	.1025	.1020	.1015	.1010	.1005	.1000	.0995	.0990
468.00	.0986	.0981	.0976	.0971	.0966	.0961	.0957	.0952	.0947	.0943	.0938	.0933
480.00	.0929	.0924	.0920	.0915	.0911	.0906	.0902	.0897	.0893	.0888	.0884	.0880
492.00	.0875	.0871	.0867	.0862	.0858	.0854	.0850	.0845	.0841	.0837	.0833	.0829
504.00	.0825	.0821	.0817	.0813	.0809	.0805	.0801	.0797	.0793	.0789	.0785	.0781

W - 185

HALF-LIFE 75.00 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOUPS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9969	.9939	.9908	.9878	.9847	.9817	.9787	.9757	.9727	.9697	.9667
4.00	.9637	.9607	.9578	.9548	.9519	.9490	.9461	.9431	.9402	.9374	.9345	.9316
8.00	.9287	.9259	.9230	.9202	.9174	.9145	.9117	.9089	.9061	.9033	.9006	.8978
12.00	.8950	.8923	.8895	.8868	.8841	.8813	.8786	.8759	.8732	.8706	.8679	.8652
16.00	.8625	.8599	.8572	.8546	.8520	.8494	.8467	.8441	.8415	.8390	.8364	.8338
20.00	.8312	.8287	.8261	.8236	.8211	.8185	.8160	.8135	.8110	.8085	.8060	.8035
24.00	.8011	.7986	.7961	.7937	.7913	.7888	.7864	.7840	.7816	.7792	.7768	.7744
28.00	.7720	.7696	.7673	.7649	.7625	.7602	.7579	.7555	.7532	.7509	.7486	.7463
32.00	.7440	.7417	.7394	.7371	.7349	.7326	.7304	.7281	.7259	.7236	.7214	.7192
36.00	.7170	.7148	.7126	.7104	.7082	.7060	.7038	.7017	.6995	.6974	.6952	.6931
40.00	.6910	.6888	.6867	.6846	.6825	.6804	.6783	.6762	.6741	.6721	.6700	.6679
44.00	.6659	.6638	.6618	.6598	.6577	.6557	.6537	.6517	.6497	.6477	.6457	.6437
48.00	.6417	.6397	.6378	.6358	.6339	.6319	.6300	.6280	.6261	.6242	.6222	.6203
52.00	.6184	.6165	.6146	.6127	.6108	.6090	.6071	.6052	.6034	.6015	.5997	.5978
56.00	.5960	.5941	.5923	.5905	.5887	.5869	.5851	.5833	.5815	.5797	.5779	.5761
60.00	.5743	.5726	.5708	.5691	.5673	.5656	.5638	.5621	.5604	.5586	.5569	.5552
64.00	.5535	.5518	.5501	.5484	.5467	.5450	.5434	.5417	.5400	.5384	.5367	.5351
68.00	.5334	.5318	.5301	.5285	.5269	.5253	.5236	.5220	.5204	.5188	.5172	.5156
72.00	.5141	.5125	.5109	.5093	.5078	.5062	.5046	.5031	.5015	.5000	.4985	.4969
76.00	.4954	.4939	.4924	.4908	.4893	.4878	.4863	.4848	.4833	.4819	.4804	.4789
80.00	.4774	.4760	.4745	.4730	.4716	.4701	.4687	.4672	.4658	.4644	.4629	.4615
84.00	.4601	.4587	.4573	.4559	.4545	.4531	.4517	.4503	.4489	.4475	.4461	.4448
88.00	.4434	.4420	.4407	.4393	.4380	.4366	.4353	.4339	.4326	.4313	.4299	.4286
92.00	.4273	.4260	.4247	.4234	.4221	.4208	.4195	.4182	.4169	.4156	.4143	.4131
96.00	.4118	.4105	.4093	.4080	.4068	.4055	.4043	.4030	.4018	.4005	.3993	.3981
100.00	.3969	.3956	.3944	.3932	.3920	.3908	.3896	.3884	.3872	.3860	.3848	.3836
104.00	.3824	.3813	.3801	.3789	.3778	.3766	.3754	.3743	.3731	.3720	.3708	.3697
108.00	.3686	.3674	.3663	.3652	.3641	.3629	.3618	.3607	.3596	.3585	.3574	.3563
112.00	.3552	.3541	.3530	.3519	.3508	.3498	.3487	.3476	.3465	.3455	.3444	.3434
116.00	.3423	.3412	.3402	.3392	.3381	.3371	.3360	.3350	.3340	.3329	.3319	.3309
120.00	.3299	.3289	.3279	.3268	.3258	.3248	.3238	.3228	.3218	.3209	.3199	.3189
124.00	.3179	.3169	.3160	.3150	.3140	.3130	.3121	.3111	.3102	.3092	.3083	.3073
128.00	.3064	.3054	.3045	.3035	.3026	.3017	.3008	.2998	.2989	.2980	.2971	.2962
132.00	.2952	.2943	.2934	.2925	.2916	.2907	.2898	.2889	.2881	.2872	.2863	.2854
136.00	.2845	.2837	.2828	.2819	.2810	.2802	.2793	.2785	.2776	.2768	.2759	.2751
140.00	.2742	.2734	.2725	.2717	.2708	.2700	.2692	.2684	.2675	.2667	.2659	.2651
144.00	.2643	.2634	.2626	.2618	.2610	.2602	.2594	.2586	.2578	.2570	.2562	.2554
148.00	.2547	.2539	.2531	.2523	.2515	.2508	.2500	.2492	.2485	.2477	.2469	.2462
152.00	.2454	.2447	.2439	.2432	.2424	.2417	.2409	.2402	.2394	.2387	.2380	.2372
156.00	.2365	.2358	.2351	.2343	.2336	.2329	.2322	.2315	.2308	.2300	.2293	.2286
160.00	.2279	.2272	.2265	.2258	.2251	.2244	.2238	.2231	.2224	.2217	.2210	.2203
164.00	.2197	.2190	.2183	.2176	.2170	.2163	.2156	.2150	.2143	.2137	.2130	.2123
168.00	.2117	.2110	.2104	.2097	.2091	.2085	.2078	.2072	.2065	.2059	.2053	.2046
172.00	.2040	.2034	.2028	.2021	.2015	.2009	.2003	.1997	.1990	.1984	.1978	.1972
176.00	.1966	.1960	.1954	.1948	.1942	.1936	.1930	.1924	.1918	.1912	.1906	.1900
180.00	.1895	.1889	.1883	.1877	.1871	.1866	.1860	.1854	.1849	.1843	.1837	.1832
184.00	.1826	.1820	.1815	.1809	.1804	.1798	.1792	.1787	.1781	.1776	.1770	.1765
188.00	.1760	.1754	.1749	.1743	.1738	.1733	.1727	.1722	.1717	.1712	.1706	.1701
192.00	.1696	.1691	.1685	.1680	.1675	.1670	.1665	.1660	.1654	.1649	.1644	.1639
196.00	.1634	.1629	.1624	.1619	.1614	.1609	.1604	.1599	.1594	.1590	.1585	.1580
200.00	.1575	.1570	.1565	.1560	.1556	.1551	.1546	.1541	.1537	.1532	.1527	.1522
204.00	.1518	.1513	.1508	.1504	.1499	.1495	.1490	.1485	.1481	.1476	.1472	.1467
208.00	.1463	.1458	.1454	.1449	.1445	.1440	.1436	.1431	.1427	.1423	.1418	.1414
212.00	.1410	.1405	.1401	.1397	.1392	.1388	.1384	.1380	.1375	.1371	.1367	.1363
216.00	.1358	.1354	.1350	.1346	.1342	.1338	.1334	.1329	.1325	.1321	.1317	.1313

W - 185

HALF-LIFE 75.00 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
220.00	.1309	.1305	.1301	.1297	.1293	.1289	.1285	.1281	.1277	.1273	.1269	.1265
224.00	.1262	.1258	.1254	.1250	.1246	.1242	.1239	.1235	.1231	.1227	.1223	.1220
228.00	.1216	.1212	.1208	.1205	.1201	.1197	.1194	.1190	.1186	.1183	.1179	.1175
232.00	.1172	.1168	.1164	.1161	.1157	.1154	.1150	.1147	.1143	.1140	.1136	.1133
236.00	.1129	.1126	.1122	.1119	.1115	.1112	.1108	.1105	.1102	.1098	.1095	.1092
240.00	.1088	.1085	.1082	.1078	.1075	.1072	.1068	.1065	.1062	.1058	.1055	.1052
244.00	.1049	.1045	.1042	.1039	.1036	.1033	.1029	.1026	.1023	.1020	.1017	.1014
248.00	.1011	.1008	.1004	.1001	.0998	.0995	.0992	.0989	.0986	.0983	.0980	.0977
252.00	.0974	.0971	.0968	.0965	.0962	.0959	.0956	.0953	.0950	.0947	.0944	.0942
256.00	.0939	.0936	.0933	.0930	.0927	.0924	.0921	.0919	.0916	.0913	.0910	.0907
260.00	.0905	.0902	.0899	.0896	.0893	.0891	.0888	.0885	.0883	.0880	.0877	.0874
264.00	.0872	.0869	.0866	.0864	.0861	.0858	.0856	.0853	.0850	.0848	.0845	.0843
268.00	.0840	.0837	.0835	.0832	.0830	.0827	.0825	.0822	.0820	.0817	.0815	.0812
272.00	.0810	.0807	.0805	.0802	.0800	.0797	.0795	.0792	.0790	.0787	.0785	.0783

W - 187

HALF-LIFE 23.90 HOURS CALCULATION INTERVAL 30.0 MINUTES

	MINUTES											
HOURS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9856	.9714	.9574	.9436	.9301	.9167	.9035	.8905	.8776	.8650	.8526
6.00	.8403	.8282	.8163	.8045	.7929	.7815	.7703	.7592	.7482	.7375	.7269	.7164
12.00	.7061	.6959	.6859	.6760	.6663	.6567	.6472	.6379	.6287	.6197	.6108	.6020
18.00	.5933	.5848	.5764	.5681	.5599	.5518	.5439	.5360	.5283	.5207	.5132	.5058
24.00	.4986	.4914	.4843	.4773	.4705	.4637	.4570	.4504	.4439	.4376	.4313	.4250
30.00	.4189	.4129	.4070	.4011	.3953	.3896	.3840	.3785	.3730	.3677	.3624	.3572
36.00	.3520	.3470	.3420	.3370	.3322	.3274	.3227	.3180	.3135	.3089	.3045	.3001
42.00	.2958	.2915	.2873	.2832	.2791	.2751	.2711	.2672	.2634	.2596	.2559	.2522
48.00	.2486	.2450	.2414	.2380	.2345	.2312	.2278	.2246	.2213	.2181	.2150	.2119
54.00	.2089	.2058	.2029	.2000	.1971	.1942	.1915	.1887	.1860	.1833	.1807	.1781
60.00	.1755	.1730	.1705	.1680	.1656	.1632	.1609	.1586	.1563	.1540	.1518	.1496
66.00	.1475	.1453	.1433	.1412	.1392	.1372	.1352	.1332	.1313	.1294	.1276	.1257
72.00	.1239	.1221	.1204	.1186	.1169	.1153	.1136	.1120	.1103	.1088	.1072	.1056
78.00	.1041	.1026	.1011	.0997	.0983	.0968	.0954	.0941	.0927	.0914	.0901	.0888
84.00	.0875	.0862	.0850	.0838	.0826	.0814	.0802	.0791	.0779	.0768	.0757	.0746

W - 188

HALF-LIFE 69.40 DAYS CALCULATION INTERVAL 8.0 HOURS

	HOURS											
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9967	.9934	.9901	.9868	.9835	.9802	.9770	.9737	.9705	.9673	.9640
4.00	.9608	.9576	.9545	.9513	.9481	.9450	.9418	.9387	.9356	.9325	.9294	.9263
8.00	.9232	.9201	.9171	.9140	.9110	.9080	.9049	.9019	.8989	.8960	.8930	.8900
12.00	.8871	.8841	.8812	.8782	.8753	.8724	.8695	.8666	.8637	.8609	.8580	.8552
16.00	.8523	.8495	.8467	.8438	.8410	.8382	.8355	.8327	.8299	.8272	.8244	.8217
20.00	.8189	.8162	.8135	.8108	.8081	.8054	.8027	.8001	.7974	.7948	.7921	.7895
24.00	.7869	.7842	.7816	.7790	.7765	.7739	.7713	.7687	.7662	.7636	.7611	.7586
28.00	.7560	.7535	.7510	.7485	.7460	.7436	.7411	.7386	.7362	.7337	.7313	.7289
32.00	.7264	.7240	.7216	.7192	.7168	.7144	.7121	.7097	.7073	.7050	.7026	.7003
36.00	.6980	.6957	.6934	.6910	.6888	.6865	.6842	.6819	.6796	.6774	.6751	.6729
40.00	.6706	.6684	.6662	.6640	.6618	.6596	.6574	.6552	.6530	.6509	.6487	.6465
44.00	.6444	.6422	.6401	.6380	.6359	.6337	.6316	.6295	.6274	.6254	.6233	.6212
48.00	.6191	.6171	.6150	.6130	.6110	.6089	.6069	.6049	.6029	.6009	.5989	.5969
52.00	.5949	.5929	.5910	.5890	.5870	.5851	.5831	.5812	.5793	.5773	.5754	.5735
56.00	.5716	.5697	.5678	.5659	.5640	.5622	.5603	.5584	.5566	.5547	.5529	.5510

HALF-LIFE 69.40 DAYS CALCULATION INTERVAL 8.0 HOURS

					HOURS							
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
60.00	.5492	.5474	.5456	.5438	.5420	.5401	.5384	.5366	.5348	.5330	.5312	.5295
64.00	.5277	.5260	.5242	.5225	.5207	.5190	.5173	.5156	.5138	.5121	.5104	.5087
68.00	.5070	.5054	.5037	.5020	.5003	.4987	.4970	.4954	.4937	.4921	.4904	.4888
72.00	.4872	.4856	.4839	.4823	.4807	.4791	.4775	.4760	.4744	.4728	.4712	.4697
76.00	.4681	.4665	.4650	.4635	.4619	.4604	.4588	.4573	.4558	.4543	.4528	.4513
80.00	.4498	.4483	.4468	.4453	.4438	.4423	.4409	.4394	.4379	.4365	.4350	.4336
84.00	.4322	.4307	.4293	.4279	.4264	.4250	.4236	.4222	.4208	.4194	.4180	.4166
88.00	.4152	.4139	.4125	.4111	.4097	.4084	.4070	.4057	.4043	.4030	.4016	.4003
92.00	.3990	.3976	.3963	.3950	.3937	.3924	.3911	.3898	.3885	.3872	.3859	.3846
96.00	.3833	.3821	.3808	.3795	.3783	.3770	.3758	.3745	.3733	.3720	.3708	.3696
100.00	.3683	.3671	.3659	.3647	.3635	.3623	.3610	.3598	.3587	.3575	.3563	.3551
104.00	.3539	.3527	.3516	.3504	.3492	.3481	.3469	.3458	.3446	.3435	.3423	.3412
108.00	.3400	.3389	.3378	.3367	.3355	.3344	.3333	.3322	.3311	.3300	.3289	.3278
112.00	.3267	.3256	.3246	.3235	.3224	.3213	.3203	.3192	.3181	.3171	.3160	.3150
116.00	.3139	.3129	.3118	.3108	.3098	.3088	.3077	.3067	.3057	.3047	.3037	.3026
120.00	.3016	.3006	.2996	.2986	.2976	.2967	.2957	.2947	.2937	.2927	.2918	.2908
124.00	.2898	.2889	.2879	.2869	.2860	.2850	.2841	.2831	.2822	.2813	.2803	.2794
128.00	.2785	.2775	.2766	.2757	.2748	.2739	.2730	.2721	.2712	.2703	.2694	.2685
132.00	.2676	.2667	.2658	.2649	.2640	.2632	.2623	.2614	.2605	.2597	.2588	.2579
136.00	.2571	.2562	.2554	.2545	.2537	.2528	.2520	.2512	.2503	.2495	.2487	.2478
140.00	.2470	.2462	.2454	.2446	.2438	.2429	.2421	.2413	.2405	.2397	.2389	.2381
144.00	.2373	.2366	.2358	.2350	.2342	.2334	.2327	.2319	.2311	.2303	.2296	.2288
148.00	.2281	.2273	.2265	.2258	.2250	.2243	.2235	.2228	.2221	.2213	.2206	.2199
152.00	.2191	.2184	.2177	.2169	.2162	.2155	.2148	.2141	.2134	.2127	.2119	.2112
156.00	.2105	.2098	.2091	.2084	.2078	.2071	.2064	.2057	.2050	.2043	.2036	.2030
160.00	.2023	.2016	.2010	.2003	.1996	.1990	.1983	.1976	.1970	.1963	.1957	.1950
164.00	.1944	.1937	.1931	.1924	.1918	.1912	.1905	.1899	.1893	.1886	.1880	.1874
168.00	.1868	.1861	.1855	.1849	.1843	.1837	.1831	.1825	.1819	.1812	.1806	.1800
172.00	.1794	.1788	.1783	.1777	.1771	.1765	.1759	.1753	.1747	.1741	.1736	.1730
176.00	.1724	.1718	.1713	.1707	.1701	.1696	.1690	.1684	.1679	.1673	.1668	.1662
180.00	.1657	.1651	.1646	.1640	.1635	.1629	.1624	.1618	.1613	.1608	.1602	.1597
184.00	.1592	.1586	.1581	.1576	.1571	.1565	.1560	.1555	.1550	.1545	.1540	.1535
188.00	.1529	.1524	.1519	.1514	.1509	.1504	.1499	.1494	.1489	.1484	.1479	.1474
192.00	.1470	.1465	.1460	.1455	.1450	.1445	.1440	.1436	.1431	.1426	.1421	.1417
196.00	.1412	.1407	.1403	.1398	.1393	.1389	.1384	.1379	.1375	.1370	.1366	.1361
200.00	.1357	.1352	.1348	.1343	.1339	.1334	.1330	.1325	.1321	.1317	.1312	.1308
204.00	.1304	.1299	.1295	.1291	.1286	.1282	.1278	.1274	.1269	.1265	.1261	.1257
208.00	.1252	.1248	.1244	.1240	.1236	.1232	.1228	.1224	.1220	.1216	.1211	.1207
212.00	.1203	.1199	.1195	.1191	.1188	.1184	.1180	.1176	.1172	.1168	.1164	.1160
216.00	.1156	.1152	.1149	.1145	.1141	.1137	.1133	.1130	.1126	.1122	.1118	.1115
220.00	.1111	.1107	.1104	.1100	.1096	.1093	.1089	.1085	.1082	.1078	.1075	.1071
224.00	.1068	.1064	.1060	.1057	.1053	.1050	.1046	.1043	.1039	.1036	.1033	.1029
228.00	.1026	.1022	.1019	.1016	.1012	.1009	.1005	.1002	.0999	.0995	.0992	.0989
232.00	.0986	.0982	.0979	.0976	.0973	.0969	.0966	.0963	.0960	.0956	.0953	.0950
236.00	.0947	.0944	.0941	.0938	.0934	.0931	.0428	.0925	.0922	.0919	.0916	.0913
240.00	.0910	.0907	.0904	.0901	.0898	.0895	.0892	.0889	.0886	.0883	.0880	.0877
244.00	.0874	.0871	.0868	.0866	.0863	.0860	.0857	.0854	.0851	.0848	.0846	.0843
248.00	.0840	.0837	.0834	.0832	.0829	.0826	.0823	.0821	.0818	.0815	.0812	.0810
252.00	.0807	.0804	.0802	.0799	.0796	.0794	.0791	.0788	.0786	.0783	.0781	.0778

HALF-LIFE 74.20 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9969	.9938	.9907	.9876	.9846	.9815	.9784	.9754	.9724	.9693	.9663
4.00	.9633	.9603	.9573	.9544	.9514	.9484	.9455	.9426	.9396	.9367	.9338	.9309
8.00	.9280	.9251	.9222	.9194	.9165	.9137	.9108	.9080	.9052	.9023	.8995	.8967
12.00	.8940	.8912	.8884	.8856	.8829	.8801	.8774	.8747	.8720	.8693	.8665	.8639
16.00	.8612	.8585	.8558	.8532	.8505	.8479	.8452	.8426	.8400	.8374	.8348	.8322
20.00	.8296	.8270	.8244	.8219	.8193	.8168	.8142	.8117	.8092	.8067	.8041	.8016
24.00	.7992	.7967	.7942	.7917	.7893	.7868	.7844	.7819	.7795	.7771	.7747	.7722
28.00	.7698	.7675	.7651	.7627	.7603	.7580	.7556	.7532	.7509	.7486	.7462	.7439
32.00	.7416	.7393	.7370	.7347	.7324	.7302	.7279	.7256	.7234	.7211	.7189	.7166
36.00	.7144	.7122	.7100	.7078	.7056	.7034	.7012	.6990	.6968	.6947	.6925	.6904
40.00	.6882	.6861	.6839	.6818	.6797	.6776	.6755	.6734	.6713	.6692	.6671	.6650
44.00	.6630	.6609	.6589	.6568	.6548	.6527	.6507	.6487	.6467	.6446	.6426	.6406
48.00	.6387	.6367	.6347	.6327	.6307	.6288	.6268	.6249	.6229	.6210	.6191	.6171
52.00	.6152	.6133	.6114	.6095	.6076	.6057	.6038	.6020	.6001	.5982	.5964	.5945
56.00	.5927	.5908	.5890	.5872	.5853	.5835	.5817	.5799	.5781	.5763	.5745	.5727
60.00	.5709	.5692	.5674	.5656	.5639	.5621	.5604	.5586	.5569	.5551	.5534	.5517
64.00	.5500	.5483	.5466	.5449	.5432	.5415	.5398	.5381	.5365	.5348	.5331	.5315
68.00	.5298	.5282	.5265	.5249	.5233	.5216	.5200	.5184	.5168	.5152	.5136	.5120
72.00	.5104	.5088	.5072	.5056	.5041	.5025	.5009	.4994	.4978	.4963	.4947	.4932
76.00	.4917	.4901	.4886	.4871	.4856	.4841	.4826	.4811	.4796	.4781	.4766	.4751
80.00	.4736	.4722	.4707	.4692	.4678	.4663	.4649	.4634	.4620	.4605	.4591	.4577
84.00	.4563	.4548	.4534	.4520	.4506	.4492	.4478	.4464	.4450	.4436	.4423	.4409
88.00	.4395	.4382	.4368	.4354	.4341	.4327	.4314	.4300	.4287	.4274	.4260	.4247
92.00	.4234	.4221	.4208	.4195	.4182	.4169	.4156	.4143	.4130	.4117	.4104	.4091
96.00	.4079	.4066	.4053	.4041	.4028	.4016	.4003	.3991	.3978	.3966	.3954	.3941
100.00	.3929	.3917	.3905	.3893	.3881	.3868	.3856	.3844	.3832	.3821	.3809	.3797
104.00	.3785	.3773	.3762	.3750	.3738	.3727	.3715	.3703	.3692	.3680	.3669	.3658
108.00	.3646	.3635	.3624	.3612	.3601	.3590	.3579	.3568	.3557	.3545	.3534	.3523
112.00	.3512	.3502	.3491	.3480	.3469	.3458	.3447	.3437	.3426	.3415	.3405	.3394
116.00	.3384	.3373	.3363	.3352	.3342	.3331	.3321	.3311	.3300	.3290	.3280	.3270
120.00	.3260	.3249	.3239	.3229	.3219	.3209	.3199	.3189	.3179	.3169	.3160	.3150
124.00	.3140	.3130	.3121	.3111	.3101	.3092	.3082	.3072	.3063	.3053	.3044	.3034
128.00	.3025	.3015	.3006	.2997	.2987	.2978	.2969	.2960	.2950	.2941	.2932	.2923
132.00	.2914	.2905	.2896	.2887	.2878	.2869	.2860	.2851	.2842	.2833	.2825	.2816
136.00	.2807	.2798	.2790	.2781	.2772	.2764	.2755	.2747	.2738	.2729	.2721	.2713
140.00	.2704	.2696	.2687	.2679	.2671	.2662	.2654	.2646	.2638	.2629	.2621	.2613
144.00	.2605	.2597	.2589	.2581	.2573	.2565	.2557	.2549	.2541	.2533	.2525	.2517
148.00	.2509	.2502	.2494	.2486	.2478	.2471	.2463	.2455	.2448	.2440	.2432	.2425
152.00	.2417	.2410	.2462	.2395	.2387	.2380	.2373	.2365	.2358	.2351	.2343	.2336
156.00	.2329	.2321	.2314	.2307	.2300	.2293	.2286	.2278	.2271	.2264	.2257	.2250
160.00	.2243	.2236	.2229	.2222	.2215	.2209	.2202	.2195	.2188	.2181	.2174	.2168
164.00	.2161	.2154	.2148	.2141	.2134	.2128	.2121	.2114	.2108	.2101	.2095	.2088
168.00	.2082	.2075	.2069	.2062	.2056	.2050	.2043	.2037	.2031	.2024	.2018	.2012
172.00	.2005	.1999	.1993	.1987	.1981	.1974	.1968	.1962	.1956	.1950	.1944	.1938
176.00	.1932	.1926	.1920	.1914	.1908	.1902	.1896	.1890	.1884	.1878	.1873	.1867
180.00	.1861	.1855	.1849	.1844	.1838	.1632	.1827	.1821	.1815	.1810	.1804	.1798
184.00	.1793	.1787	.1782	.1776	.1771	.1765	.1760	.1754	.1749	.1743	.1738	.1732
188.00	.1727	.1722	.1716	.1711	.1706	.1700	.1695	.1690	.1684	.1679	.1674	.1669
192.00	.1664	.1658	.1653	.1648	.1643	.1638	.1633	.1628	.1623	.1618	.1613	.1608
196.00	.1603	.1598	.1593	.1588	.1583	.1578	.1573	.1568	.1563	.1558	.1553	.1549
200.00	.1544	.1539	.1534	.1529	.1525	.1520	.1515	.1511	.1506	.1501	.1496	.1492
204.00	.1487	.1483	.1478	.1473	.1469	.1464	.1460	.1455	.1451	.1446	.1442	.1437
208.00	.1433	.1428	.1424	.1419	.1415	.1411	.1406	.1402	.1397	.1393	.1389	.1384
212.00	.1380	.1376	.1372	.1367	.1363	.1359	.1355	.1350	.1346	.1342	.1338	.1334
216.00	.1329	.1325	.1321	.1317	.1313	.1309	.1305	.1301	.1297	.1293	.1289	.1285

IR - 192

HALF-LIFE 74.20 DAYS CALCULATION INTERVAL 8.0 HOURS

DAYS	HOURS 0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
220.00	.1281	.1277	.1273	.1269	.1265	.1261	.1257	.1253	.1249	.1245	.1241	.1238
224.00	.1234	.1230	.1226	.1222	.1218	.1215	.1211	.1207	.1203	.1200	.1196	.1192
228.00	.1189	.1185	.1181	.1177	.1174	.1170	.1167	.1163	.1159	.1156	.1152	.1148
232.00	.1145	.1141	.1138	.1134	.1131	.1127	.1124	.1120	.1117	.1113	.1110	.1106
236.00	.1103	.1099	.1096	.1093	.1089	.1086	.1083	.1079	.1076	.1072	.1069	.1066
240.00	.1062	.1059	.1056	.1053	.1049	.1046	.1043	.1040	.1036	.1033	.1030	.1027
244.00	.1024	.1020	.1017	.1014	.1011	.1008	.1005	.1001	.0998	.0995	.0992	.0989
248.00	.0986	.0983	.0980	.0977	.0974	.0971	.0968	.0965	.0962	.0959	.0956	.0953
252.00	.0950	.0947	.0944	.0941	.0938	.0935	.0932	.0929	.0926	.0924	.0921	.0918
256.00	.0915	.0912	.0909	.0906	.0904	.0901	.0898	.0895	.0892	.0890	.0887	.0884
260.00	.0881	.0879	.0876	.0873	.0870	.0868	.0865	.0862	.0860	.0857	.0854	.0852
264.00	.0849	.0846	.0844	.0841	.0839	.0836	.0833	.0831	.0828	.0826	.0823	.0820
268.00	.0818	.0815	.0813	.0810	.0808	.0805	.0803	.0800	.0798	.0795	.0793	.0790

AU - 198

HALF-LIFE 2.70 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
0.00	1.0000	.9947	.9894	.9841	.9788	.9736	.9684	.9633	.9581	.9530	.9479	.9429
.25	.9378	.9328	.9279	.9229	.9180	.9131	.9082	.9034	.8986	.8938	.8890	.8843
.50	.8795	.8748	.8702	.8655	.8609	.8563	.8518	.8472	.8427	.8382	.8337	.8293
.75	.8249	.8205	.8161	.8117	.8074	.8031	.7988	.7945	.7903	.7861	.7819	.7777
1.00	.7736	.7695	.7654	.7613	.7572	.7532	.7492	.7452	.7412	.7372	.7333	.7294
1.25	.7255	.7216	.7178	.7139	.7101	.7064	.7026	.6988	.6951	.6914	.6877	.6840
1.50	.6804	.6768	.6732	.6696	.6660	.6624	.6589	.6554	.6519	.6484	.6450	.6415
1.75	.6381	.6347	.6313	.6279	.6246	.6213	.6179	.6147	.6114	.6081	.6049	.6016
2.00	.5984	.5952	.5921	.5889	.5858	.5826	.5795	.5764	.5734	.5703	.5673	.5642
2.25	.5612	.5582	.5553	.5523	.5494	.5464	.5435	.5406	.5377	.5349	.5320	.5292
2.50	.5263	.5235	.5207	.5180	.5152	.5125	.5097	.5070	.5043	.5016	.4989	.4963
2.75	.4936	.4910	.4884	.4858	.4832	.4806	.4780	.4755	.4729	.4704	.4679	.4654
3.00	.4629	.4605	.4580	.4556	.4531	.4507	.4483	.4459	.4435	.4412	.4388	.4365
3.25	.4342	.4318	.4295	.4272	.4250	.4227	.4204	.4182	.4160	.4138	.4115	.4094
3.50	.4072	.4050	.4028	.4007	.3986	.3964	.3943	.3922	.3901	.3880	.3860	.3839
3.75	.3819	.3798	.3778	.3758	.3738	.3718	.3698	.3678	.3659	.3639	.3620	.3600
4.00	.3581	.3562	.3543	.3524	.3505	.3487	.3468	.3450	.3431	.3413	.3395	.3377
4.25	.3359	.3341	.3323	.3305	.3287	.3270	.3253	.3235	.3218	.3201	.3184	.3167
4.50	.3150	.3133	.3116	.3100	.3083	.3067	.3050	.3034	.3018	.3002	.2986	.2970
4.75	.2954	.2938	.2923	.2907	.2891	.2876	.2861	.2845	.2830	.2815	.2800	.2785
5.00	.2770	.2756	.2741	.2726	.2712	.2697	.2683	.2669	.2654	.2640	.2626	.2612
5.25	.2598	.2584	.2571	.2557	.2543	.2530	.2516	.2503	.2489	.2476	.2463	.2450
5.50	.2437	.2424	.2411	.2398	.2385	.2372	.2360	.2347	.2335	.2322	.2310	.2297
5.75	.2285	.2273	.2261	.2249	.2237	.2225	.2213	.2201	.2189	.2178	.2166	.2155
6.00	.2143	.2132	.2120	.2109	.2098	.2087	.2075	.2064	.2053	.2042	.2032	.2021
6.25	.2010	.1999	.1989	.1978	.1967	.1957	.1946	.1936	.1926	.1915	.1905	.1895
6.50	.1885	.1875	.1865	.1855	.1845	.1835	.1825	.1816	.1806	.1796	.1787	.1777
6.75	.1768	.1758	.1749	.1740	.1730	.1721	.1712	.1703	.1694	.1685	.1676	.1667
7.00	.1658	.1649	.1640	.1631	.1623	.1614	.1606	.1597	.1588	.1580	.1572	.1563
7.25	.1555	.1547	.1538	.1530	.1522	.1514	.1506	.1498	.1490	.1482	.1474	.1466
7.50	.1458	.1450	.1443	.1435	.1427	.1420	.1412	.1405	.1397	.1390	.1382	.1375
7.75	.1368	.1360	.1353	.1346	.1339	.1331	.1324	.1317	.1310	.1303	.1296	.1289
8.00	.1283	.1276	.1269	.1262	.1255	.1249	.1242	.1235	.1229	.1222	.1216	.1209
8.25	.1203	.1196	.1190	.1184	.1177	.1171	.1165	.1159	.1152	.1146	.1140	.1134
8.50	.1128	.1122	.1116	.1110	.1104	.1098	.1092	.1087	.1081	.1075	.1069	.1064

AU - 198

HALF-LIFE 2.70 DAYS CALCULATION INTERVAL .5 HOURS

	HOURS											
DAYS	0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
8.75	.1058	.1052	.1047	.1041	.1035	.1030	.1024	.1019	.1014	.1008	.1003	.0997
9.00	.0992	.0987	.0982	.0976	.0971	.0966	.0961	.0956	.0951	.0946	.0940	.0935
9.25	.0930	.0925	.0921	.0916	.0911	.0906	.0901	.0896	.0891	.0887	.0882	.0877
9.50	.0873	.0868	.0863	.0859	.0854	.0850	.0845	.0841	.0836	.0832	.0827	.0823
9.75	.0818	.0814	.0810	.0805	.0801	.0797	.0793	.0788	.0784	.0780	.0776	.0772

HG - 197

HALF-LIFE 65.00 HOURS CALCULATION INTERVAL 30.0 MINUTES

	MINUTES											
HOURS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9947	.9894	.9841	.9789	.9737	.9685	.9634	.9582	.9531	.9481	.9430
6.00	.9380	.9330	.9281	.9231	.9182	.9133	.9085	.9037	.8989	.8941	.8893	.8846
12.00	.8799	.8752	.8706	.8659	.8613	.8567	.8522	.8476	.8431	.8387	.8342	.8298
18.00	.8253	.8210	.8166	.8123	.8079	.8036	.7994	.7951	.7909	.7867	.7825	.7783
24.00	.7742	.7701	.7660	.7619	.7579	.7538	.7498	.7458	.7419	.7379	.7340	.7301
30.00	.7262	.7223	.7185	.7147	.7109	.7071	.7033	.6996	.6959	.6922	.6885	.6848
36.00	.6812	.6776	.6740	.6704	.6668	.6633	.6598	.6562	.6528	.6493	.6458	.6424
42.00	.6390	.6356	.6322	.6288	.6255	.6222	.6189	.6156	.6123	.6090	.6058	.6026
48.00	.5994	.5962	.5930	.5899	.5867	.5836	.5805	.5774	.5743	.5713	.5683	.5652
54.00	.5622	.5592	.5563	.5533	.5504	.5474	.5445	.5416	.5388	.5359	.5330	.5302
60.00	.5274	.5246	.5218	.5190	.5163	.5135	.5108	.5081	.5054	.5027	.5000	.4973
66.00	.4947	.4921	.4894	.4868	.4843	.4817	.4791	.4766	.4740	.4715	.4690	.4665
72.00	.4640	.4616	.4591	.4567	.4542	.4518	.4494	.4470	.4447	.4423	.4399	.4376
78.00	.4353	.4330	.4307	.4284	.4261	.4238	.4216	.4193	.4171	.4149	.4127	.4105
84.00	.4083	.4061	.4040	.4018	.3997	.3976	.3954	.3933	.3912	.3892	.3871	.3850
90.00	.3830	.3810	.3789	.3769	.3749	.3729	.3709	.3690	.3670	.3650	.3631	.3612
96.00	.3593	.3573	.3554	.3536	.3517	.3498	.3479	.3461	.3443	.3424	.3406	.3388
102.00	.3370	.3352	.3334	.3316	.3299	.3281	.3264	.3246	.3229	.3212	.3195	.3178
108.00	.3161	.3144	.3127	.3111	.3094	.3078	.3061	.3045	.3029	.3013	.2997	.2981
114.00	.2965	.2949	.2934	.2918	.2903	.2887	.2872	.2856	.2841	.2826	.2811	.2796
120.00	.2781	.2767	.2752	.2737	.2723	.2708	.2694	.2679	.2665	.2651	.2637	.2623
126.00	.2609	.2595	.2581	.2568	.2554	.2540	.2527	.2513	.2500	.2487	.2473	.2460
132.00	.2447	.2434	.2421	.2408	.2396	.2383	.2370	.2358	.2345	.2333	.2320	.2308
138.00	.2296	.2283	.2271	.2259	.2247	.2235	.2223	.2211	.2200	.2188	.2176	.2165
144.00	.2153	.2142	.2130	.2119	.2108	.2097	.2085	.2074	.2063	.2052	.2041	.2031
150.00	.2020	.2009	.1998	.1988	.1977	.1967	.1956	.1946	.1935	.1925	.1915	.1905
156.00	.1895	.1885	.1875	.1865	.1855	.1845	.1835	.1825	.1816	.1806	.1796	.1787
162.00	.1777	.1768	.1758	.1749	.1740	.1730	.1721	.1712	.1703	.1694	.1685	.1676
168.00	.1667	.1658	.1649	.1641	.1632	.1623	.1615	.1606	.1597	.1589	.1581	.1572
174.00	.1564	.1555	.1547	.1539	.1531	.1523	.1515	.1506	.1498	.1490	.1483	.1475
180.00	.1467	.1459	.1451	.1444	.1436	.1428	.1421	.1413	.1406	.1398	.1391	.1383
186.00	.1376	.1369	.1361	.1354	.1347	.1340	.1333	.1326	.1318	.1311	.1304	.1298
192.00	.1291	.1284	.1277	.1270	.1263	.1257	.1250	.1243	.1237	.1230	.1224	.1217
198.00	.1211	.1204	.1198	.1191	.1185	.1179	.1173	.1166	.1160	.1154	.1148	.1142
204.00	.1136	.1130	.1124	.1118	.1112	.1106	.1100	.1094	.1088	.1082	.1077	.1071
210.00	.1065	.1060	.1054	.1048	.1043	.1037	.1032	.1026	.1021	.1015	.1010	.1005
216.00	.0999	.0994	.0989	.0983	.0978	.0973	.0968	.0963	.0957	.0952	.0947	.0942
222.00	.0937	.0932	.0927	.0922	.0917	.0913	.0908	.0903	.0898	.0893	.0889	.0884
228.00	.0879	.0875	.0870	.0865	.0861	.0856	.0852	.0847	.0842	.0838	.0834	.0829
234.00	.0825	.0820	.0816	.0812	.0807	.0803	.0799	.0794	.0790	.0786	.0782	.0778

HG - 203

HALF-LIFE 46.90 DAYS CALCULATION INTERVAL 8.0 HOURS

					HOURS							
DAYS	0.0	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0	88.0
0.00	1.0000	.9951	.9902	.9853	.9805	.9757	.9709	.9661	.9614	.9566	.9519	.9473
4.00	.9426	.9380	.9334	.9288	.9242	.9197	.9151	.9106	.9062	.9017	.8973	.8929
8.00	.8885	.8841	.8798	.8755	.8712	.8669	.8626	.8584	.8542	.8500	.8458	.8416
12.00	.8375	.8334	.8293	.8252	.8211	.8171	.8131	.8091	.8051	.8012	.7972	.7933
16.00	.7894	.7855	.7817	.7778	.7740	.7702	.7664	.7627	.7589	.7552	.7515	.7478
20.00	.7441	.7404	.7368	.7332	.7296	.7260	.7224	.7189	.7153	.7118	.7083	.7048
24.00	.7014	.6979	.6945	.6911	.6877	.6843	.6810	.6776	.6743	.6710	.6677	.6644
28.00	.6611	.6579	.6546	.6514	.6482	.6450	.6419	.6387	.6356	.6324	.6293	.6262
32.00	.6232	.6201	.6171	.6140	.6110	.6080	.6050	.6020	.5991	.5961	.5932	.5903
36.00	.5874	.5845	.5816	.5788	.5759	.5731	.5703	.5675	.5647	.5619	.5592	.5564
40.00	.5537	.5510	.5483	.5456	.5429	.5402	.5376	.5349	.5323	.5297	.5271	.5245
44.00	.5219	.5193	.5168	.5142	.5117	.5092	.5067	.5042	.5017	.4993	.4968	.4944
48.00	.4919	.4895	.4871	.4847	.4823	.4800	.4776	.4753	.4729	.4706	.4683	.4660
52.00	.4637	.4614	.4592	.4569	.4547	.4524	.4502	.4480	.4458	.4436	.4414	.4392
56.00	.4371	.4349	.4328	.4307	.4286	.4264	.4243	.4223	.4202	.4181	.4161	.4140
60.00	.4120	.4100	.4080	.4059	.4040	.4020	.4000	.3980	.3961	.3941	.3922	.3903
64.00	.3883	.3864	.3845	.3826	.3808	.3789	.3770	.3752	.3733	.3715	.3697	.3679
68.00	.3660	.3642	.3625	.3607	.3589	.3571	.3554	.3536	.3519	.3502	.3485	.3467
72.00	.3450	.3433	.3417	.3400	.3383	.3366	.3350	.3333	.3317	.3301	.3284	.3268
76.00	.3252	.3236	.3220	.3205	.3189	.3173	.3158	.3142	.3127	.3111	.3096	.3081
80.00	.3066	.3051	.3036	.3021	.3006	.2991	.2976	.2962	.2947	.2933	.2918	.2904
84.00	.2890	.2875	.2861	.2847	.2833	.2819	.2805	.2792	.2778	.2764	.2751	.2737
88.00	.2724	.2710	.2697	.2684	.2671	.2657	.2644	.2631	.2618	.2606	.2593	.2580
92.00	.2567	.2555	.2542	.2530	.2517	.2505	.2493	.2480	.2468	.2456	.2444	.2432
96.00	.2420	.2408	.2396	.2385	.2373	.2361	.2350	.2338	.2327	.2315	.2304	.2292
100.00	.2281	.2270	.2259	.2248	.2237	.2226	.2215	.2204	.2193	.2182	.2171	.2161
104.00	.2150	.2140	.2129	.2119	.2108	.2098	.2088	.2077	.2067	.2057	.2047	.2037
108.00	.2027	.2017	.2007	.1997	.1987	.1977	.1968	.1958	.1948	.1939	.1929	.1920
112.00	.1910	.1901	.1892	.1882	.1873	.1864	.1855	.1846	.1837	.1828	.1819	.1810
116.00	.1801	.1792	.1783	.1774	.1766	.1757	.1748	.1740	.1731	.1723	.1714	.1706
120.00	.1697	.1689	.1681	.1672	.1664	.1656	.1648	.1640	.1632	.1624	.1616	.1608
124.00	.1600	.1592	.1584	.1576	.1569	.1561	.1553	.1546	.1538	.1531	.1523	.1516
128.00	.1508	.1501	.1493	.1486	.1479	.1471	.1464	.1457	.1450	.1443	.1436	.1429
132.00	.1422	.1415	.1408	.1401	.1394	.1387	.1380	.1373	.1367	.1360	.1353	.1347
136.00	.1340	.1333	.1327	.1320	.1314	.1307	.1301	.1294	.1288	.1282	.1276	.1269
140.00	.1263	.1257	.1251	.1244	.1238	.1232	.1226	.1220	.1214	.1208	.1202	.1196
144.00	.1190	.1185	.1179	.1173	.1167	.1162	.1156	.1150	.1144	.1139	.1133	.1128
148.00	.1122	.1117	.1111	.1106	.1100	.1095	.1089	.1084	.1079	.1073	.1068	.1063
152.00	.1058	.1053	.1047	.1042	.1037	.1032	.1027	.1022	.1017	.1012	.1007	.1002
156.00	.0997	.0992	.0987	.0982	.0978	.0973	.0968	.0963	.0958	.0954	.0949	.0944
160.00	.0940	.0935	.0931	.0926	.0921	.0917	.0912	.0908	.0903	.0899	.0895	.0890
164.00	.0886	.0881	.0877	.0873	.0869	.0864	.0860	.0856	.0852	.0847	.0843	.0839
168.00	.0835	.0831	.0827	.0823	.0819	.0815	.0811	.0807	.0803	.0799	.0795	.0791

HALF-LIFE 3.81 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	DAYS 40.0	50.0	60.0	70.0	80.0	90.0
0.0	1.0000	.9950	.9901	.9852	.9803	.9754	.9705	.9657	.9609	.9561
100.0	.9514	.9466	.9419	.9373	.9326	.9280	.9233	.9188	.9142	.9096
200.0	.9051	.9006	.8961	.8917	.8873	.8828	.8785	.8741	.8697	.8654
300.0	.8611	.8568	.8526	.8483	.8441	.8399	.8357	.8316	.8275	.8233
400.0	.8192	.8152	.8111	.8071	.8031	.7991	.7951	.7912	.7872	.7833
500.0	.7794	.7755	.7717	.7678	.7640	.7602	.7564	.7527	.7489	.7452
600.0	.7415	.7378	.7342	.7305	.7269	.7233	.7197	.7161	.7125	.7090
700.0	.7055	.7020	.6985	.6950	.6915	.6881	.6847	.6813	.6779	.6745
800.0	.6712	.6678	.6645	.6612	.6579	.6546	.6514	.6481	.6449	.6417
900.0	.6385	.6354	.6322	.6291	.6259	.6228	.6197	.6166	.6136	.6105
1000.0	.6075	.6045	.6015	.5985	.5955	.5925	.5896	.5867	.5837	.5808
1100.0	.5779	.5751	.5722	.5694	.5665	.5637	.5609	.5581	.5554	.5526
1200.0	.5498	.5471	.5444	.5417	.5390	.5363	.5336	.5310	.5284	.5257
1300.0	.5231	.5205	.5179	.5153	.5128	.5102	.5077	.5052	.5027	.5002
1400.0	.4977	.4952	.4927	.4903	.4879	.4854	.4830	.4806	.4782	.4758
1500.0	.4735	.4711	.4688	.4665	.4641	.4618	.4595	.4572	.4550	.4527
1600.0	.4505	.4482	.4460	.4438	.4416	.4394	.4372	.4350	.4328	.4307
1700.0	.4286	.4264	.4243	.4222	.4201	.4180	.4159	.4139	.4118	.4098
1800.0	.4077	.4057	.4037	.4017	.3947	.3977	.3957	.3937	.3918	.3898
1900.0	.3879	.3860	.3840	.3821	.3802	.3783	.3765	.3746	.3727	.3709
2000.0	.3690	.3672	.3654	.3636	.3617	.3600	.3582	.3564	.3546	.3528
2100.0	.3511	.3493	.3476	.3459	.3442	.3424	.3407	.3391	.3374	.3357
2200.0	.3340	.3324	.3307	.3291	.3274	.3258	.3242	.3226	.3210	.3194
2300.0	.3178	.3162	.3146	.3131	.3115	.3100	.3084	.3069	.3054	.3038
2400.0	.3023	.3008	.2993	.2978	.2964	.2949	.2934	.2920	.2905	.2891
2500.0	.2876	.2862	.2848	.2834	.2820	.2805	.2792	.2778	.2764	.2750
2600.0	.2736	.2723	.2709	.2696	.2682	.2669	.2656	.2643	.2629	.2616
2700.0	.2603	.2590	.2578	.2565	.2552	.2539	.2527	.2514	.2502	.2489
2800.0	.2477	.2464	.2452	.2440	.2428	.2416	.2404	.2392	.2380	.2368
2900.0	.2356	.2345	.2333	.2321	.2310	.2298	.2287	.2276	.226[illegible]	.2253
3000.0	.2242	.2231	.2220	.2209	.2198	.2187	.2176	.2165	.2154	.2143
3100.0	.2133	.2122	.2112	.2101	.2091	.2080	.2070	.2060	.2049	.2039
3200.0	.2029	.2019	.2009	.1999	.1989	.1979	.1969	.1960	.1950	.1940
3300.0	.1930	.1921	.1911	.1902	.1892	.1883	.1874	.1864	.1855	.1846
3400.0	.1837	.1827	.1818	.1809	.1800	.1791	.1782	.1774	.1765	.1756
3500.0	.1747	.1739	.1730	.1721	.1713	.1704	.1696	.1687	.1679	.1671
3600.0	.1662	.1654	.1646	.1638	.1630	.1621	.1613	.1605	.1597	.1589
3700.0	.1582	.1574	.1566	.1558	.1550	.1543	.1535	.1527	.1520	.1512
3800.0	.1505	.1497	.1490	.1482	.1475	.1468	.1460	.1453	.1446	.1439
3900.0	.1431	.1424	.1417	.1410	.1403	.1396	.1389	.1382	.1376	.1369
4000.0	.1362	.1355	.1348	.1342	.1335	.1328	.1322	.1315	.1309	.1302
4100.0	.1296	.1289	.1283	.1276	.1270	.1264	.1257	.1251	.1245	.1239
4200.0	.1233	.1227	.1220	.1214	.1208	.1202	.1196	.1190	.1184	.1179
4300.0	.1173	.1167	.1161	.1155	.1150	.1144	.1138	.1133	.1127	.1121
4400.0	.1116	.1110	.1105	.1099	.1094	.1088	.1083	.1077	.1072	.1067
4500.0	.1061	.1056	.1051	.1046	.1040	.1035	.1030	.1025	.1020	.1015
4600.0	.1010	.1005	.1000	.0995	.0990	.0985	.0980	.0975	.0970	.0966
4700.0	.0961	.0956	.0951	.0946	.0942	.0537	.0932	.0928	.0923	.0919
4800.0	.0914	.0909	.0905	.0900	.0896	.0892	.0887	.0883	.0878	.0874
4900.0	.0870	.0865	.0861	.0857	.0852	.0848	.0844	.0840	.0836	.0831
5000.0	.0827	.0823	.0819	.0815	.0811	.0807	.0803	.0799	.0795	.0791

TL - 206

HALF-LIFE 4.19 MINUTES CALCULATION INTERVAL 1.0 SECONDS

	SECONDS											
MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9972	.9945	.9918	.9890	.9863	.9836	.9809	.9782	.9755	.9728	.9701
.20	.9675	.9648	.9621	.9595	.9568	.9542	.9516	.9490	.9463	.9437	.9411	.9386
.40	.9360	.9334	.9308	.9283	.9257	.9232	.9206	.9181	.9156	.9130	.9105	.9080
.60	.9055	.9030	.9005	.8981	.8956	.8931	.8907	.8882	.8858	.8833	.8809	.8785
.80	.8760	.8736	.8712	.8688	.8664	.8640	.8617	.8593	.8569	.8546	.8522	.8499
1.00	.8475	.8452	.8429	.8405	.8382	.8359	.8336	.8313	.8290	.8268	.8245	.8222
1.20	.8199	.8177	.8154	.8132	.8110	.8087	.8065	.8043	.8021	.7999	.7976	.7955
1.40	.7933	.7911	.7889	.7867	.7846	.7824	.7802	.7781	.7760	.7738	.7717	.7696
1.60	.7674	.7653	.7632	.7611	.7590	.7569	.7549	.7528	.7507	.7486	.7466	.7445
1.80	.7425	.7404	.7384	.7364	.7343	.7323	.7303	.7283	.7263	.7243	.7223	.7203
2.00	.7183	.7163	.7144	.7124	.7104	.7085	.7065	.7046	.7026	.7007	.6988	.6968
2.20	.6949	.6930	.6911	.6892	.6873	.6854	.6835	.6816	.6798	.6779	.6760	.6742
2.40	.6723	.6705	.6686	.6668	.6649	.6631	.6613	.6595	.6576	.6558	.6540	.6522
2.60	.6504	.6486	.6469	.6451	.6433	.6415	.6398	.6380	.6362	.6345	.6327	.6310
2.80	.6293	.6275	.6258	.6241	.6224	.6207	.6189	.6172	.6155	.6138	.6122	.6105
3.00	.6088	.6071	.6054	.6038	.6021	.6005	.5988	.5972	.5955	.5939	.5922	.5906
3.20	.5890	.5874	.5857	.5841	.5825	.5809	.5793	.5777	.5761	.5745	.5730	.5714
3.40	.5698	.5682	.5667	.5651	.5636	.5620	.5605	.5589	.5574	.5558	.5543	.5528
3.60	.5513	.5497	.5482	.5467	.5452	.5437	.5422	.5407	.5392	.5378	.5363	.5348
3.80	.5333	.5319	.5304	.5289	.5275	.5260	.5246	.5231	.5217	.5203	.5188	.5174
4.00	.5160	.5145	.5131	.5117	.5103	.5089	.5075	.5061	.5047	.5033	.5019	.5006
4.20	.4992	.4978	.4964	.4951	.4937	.4923	.4910	.4896	.4883	.4869	.4856	.4843
4.40	.4829	.4816	.4803	.4790	.4776	.4763	.4750	.4737	.4724	.4711	.4698	.4685
4.60	.4672	.4659	.4646	.4634	.4621	.4608	.4595	.4583	.4570	.4558	.4545	.4533
4.80	.4520	.4508	.4495	.4483	.4470	.4458	.4446	.4434	.4421	.4409	.4397	.4385
5.00	.4373	.4361	.4349	.4337	.4325	.4313	.4301	.4289	.4278	.4266	.4254	.4242
5.20	.4231	.4219	.4207	.4196	.4184	.4173	.4161	.4150	.4138	.4127	.4116	.4104
5.40	.4093	.4082	.4070	.4059	.4048	.4037	.4026	.4015	.4004	.3993	.3982	.3971
5.60	.3960	.3949	.3938	.3927	.3916	.3906	.3895	.3884	.3873	.3863	.3852	.3841
5.80	.3831	.3820	.3810	.3799	.3789	.3778	.3768	.3758	.3747	.3737	.3727	.3716
6.00	.3706	.3696	.3686	.3676	.3666	.3655	.3645	.3635	.3625	.3615	.3605	.3595
6.20	.3586	.3576	.3566	.3556	.3546	.3537	.3527	.3517	.3507	.3498	.3488	.3478
6.40	.3469	.3459	.3450	.3440	.3431	.3421	.3412	.3403	.3393	.3384	.3375	.3365
6.60	.3356	.3347	.3338	.3328	.3319	.3310	.3301	.3292	.3283	.3274	.3265	.3256
6.80	.3247	.3238	.3229	.3220	.3211	.3202	.3194	.3185	.3176	.3167	.3158	.3150
7.00	.3141	.3132	.3124	.3115	.3107	.3098	.3090	.3081	.3073	.3064	.3056	.3047
7.20	.3039	.3031	.3022	.3014	.3006	.2997	.2989	.2981	.2973	.2964	.2956	.2948
7.40	.2940	.2932	.2924	.2916	.2908	.2900	.2892	.2884	.2876	.2868	.2860	.2852
7.60	.2844	.2836	.2829	.2821	.2813	.2805	.2798	.2790	.2782	.2775	.2767	.2759
7.80	.2752	.2744	.2737	.2729	.2722	.2714	.2707	.2699	.2692	.2684	.2677	.2670
8.00	.2662	.2655	.2648	.2640	.2633	.2626	.2619	.2611	.2604	.2597	.2590	.2583
8.20	.2576	.2568	.2561	.2554	.2547	.2540	.2533	.2526	.2519	.2512	.2506	.2499
8.40	.2492	.2485	.2478	.2471	.2464	.2458	.2451	.2444	.2437	.2431	.2424	.2417
8.60	.2411	.2404	.2397	.2391	.2384	.2378	.2371	.2365	.2358	.2352	.2345	.2339
8.80	.2332	.2326	.2319	.2313	.2307	.2300	.2294	.2288	.2281	.2275	.2269	.2263
9.00	.2256	.2250	.2244	.2238	.2232	.2225	.2219	.2213	.2207	.2201	.2195	.2189
9.20	.2183	.2177	.2171	.2165	.2159	.2153	.2147	.2141	.2135	.2129	.2124	.2118
9.40	.2112	.2106	.2100	.2094	.2089	.2083	.2077	.2071	.2066	.2060	.2054	.2049
9.60	.2043	.2037	.2032	.2026	.2021	.2015	.2010	.2004	.1999	.1993	.1988	.1982
9.80	.1977	.1971	.1966	.1960	.1955	.1950	.1944	.1939	.1933	.1928	.1923	.1918
10.00	.1912	.1907	.1902	.1897	.1891	.1886	.1881	.1876	.1871	.1865	.1860	.1855
10.20	.1850	.1845	.1840	.1835	.1830	.1825	.1820	.1815	.1810	.1805	.1800	.1795
10.40	.1790	.1785	.1780	.1775	.1770	.1765	.1760	.1756	.1751	.1746	.1741	.1736
10.60	.1732	.1727	.1722	.1717	.1713	.1708	.1703	.1698	.1694	.1689	.1684	.1680
10.80	.1675	.1671	.1666	.1661	.1657	.1652	.1648	.1643	.1639	.1634	.1630	.1625

TL - 206

HALF-LIFE 4.19 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
11.00	.1621	.1616	.1612	.1607	.1603	.1599	.1594	.1590	.1585	.1581	.1577	.1572
11.20	.1568	.1564	.1559	.1555	.1551	.1547	.1542	.1538	.1534	.1530	.1525	.1521
11.40	.1517	.1513	.1509	.1504	.1500	.1496	.1492	.1488	.1484	.1480	.1476	.1472
11.60	.1468	.1464	.1460	.1455	.1451	.1447	.1443	.1440	.1436	.1432	.1428	.1424
11.80	.1420	.1416	.1412	.1408	.1404	.1400	.1397	.1393	.1389	.1385	.1381	.1377
12.00	.1374	.1370	.1366	.1362	.1359	.1355	.1351	.1347	.1344	.1340	.1336	.1333
12.20	.1329	.1325	.1322	.1318	.1314	.1311	.1307	.1303	.1300	.1296	.1293	.1289
12.40	.1286	.1282	.1279	.1275	.1272	.1268	.1265	.1261	.1258	.1254	.1251	.1247
12.60	.1244	.1240	.1237	.1234	.1230	.1227	.1223	.1220	.1217	.1213	.1210	.1207
12.80	.1203	.1200	.1197	.1193	.1190	.1187	.1184	.1180	.1177	.1174	.1171	.1167
13.00	.1164	.1161	.1158	.1155	.1151	.1148	.1145	.1142	.1139	.1136	.1133	.1129
13.20	.1126	.1123	.1120	.1117	.1114	.1111	.1108	.1105	.1102	.1099	.1096	.1093
13.40	.1090	.1087	.1084	.1081	.1078	.1075	.1072	.1069	.1066	.1063	.1060	.1057
13.60	.1054	.1051	.1048	.1045	.1043	.1040	.1037	.1034	.1031	.1028	.1025	.1023
13.80	.1020	.1017	.1014	.1011	.1009	.1006	.1003	.1000	.0998	.0995	.0992	.0989
14.00	.0987	.0984	.0981	.0979	.0976	.0973	.0970	.0968	.0965	.0962	.0960	.0957
14.20	.0955	.0952	.0949	.0947	.0944	.0941	.0939	.0936	.0934	.0931	.0929	.0926
14.40	.0923	.0921	.0918	.0916	.0913	.0911	.0908	.0906	.0903	.0901	.0898	.0896
14.60	.0893	.0891	.0889	.0886	.0884	.0881	.0879	.0876	.0874	.0872	.0869	.0867
14.80	.0864	.0862	.0860	.0857	.0855	.0853	.0850	.0848	.0846	.0843	.0841	.0839
15.00	.0836	.0834	.0832	.0829	.0827	.0825	.0823	.0820	.0818	.0816	.0813	.0811
15.20	.0809	.0807	.0805	.0802	.0800	.0798	.0796	.0794	.0791	.0789	.0787	.0785

TL - 207

HALF-LIFE 4.79 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9976	.9952	.9928	.9904	.9880	.9856	.9833	.9809	.9785	.9762	.9738
.20	.9715	.9691	.9668	.9645	.9621	.9598	.9575	.9552	.9529	.9506	.9483	.9460
.40	.9438	.9415	.9392	.9370	.9347	.9324	.9302	.9280	.9257	.9235	.9213	.9191
.60	.9168	.9146	.9124	.9102	.9080	.9058	.9037	.9015	.8993	.8972	.8950	.8928
.80	.8907	.8885	.8864	.8843	.8821	.8800	.8779	.8758	.8737	.8716	.8695	.8674
1.00	.8653	.8632	.8611	.8590	.8570	.8549	.8528	.8508	.8487	.8467	.8447	.8426
1.20	.8406	.8386	.8365	.8345	.8325	.8305	.8285	.8265	.8245	.8225	.8206	.8186
1.40	.8166	.8146	.8127	.8107	.8088	.8068	.8049	.8029	.8010	.7991	.7972	.7952
1.60	.7933	.7914	.7895	.7876	.7857	.7838	.7819	.7800	.7782	.7763	.7744	.7725
1.80	.7707	.7688	.7670	.7651	.7633	.7614	.7596	.7578	.7560	.7541	.7523	.7505
2.00	.7487	.7469	.7451	.7433	.7415	.7397	.7379	.7362	.7344	.7326	.7309	.7291
2.20	.7273	.7256	.7238	.7221	.7204	.7186	.7169	.7152	.7134	.7117	.7100	.7083
2.40	.7066	.7049	.7032	.7015	.6998	.6981	.6964	.6948	.6931	.6914	.6898	.6881
2.60	.6864	.6848	.6831	.6815	.6798	.6782	.6766	.6749	.6733	.6717	.6701	.6685
2.80	.6669	.6653	.6636	.6620	.6605	.6589	.6573	.6557	.6541	.6525	.6510	.6494
3.00	.6478	.6463	.6447	.6432	.6416	.6401	.6385	.6370	.6355	.6339	.6324	.6309
3.20	.6294	.6278	.6263	.6248	.6233	.6218	.6203	.6188	.6173	.6158	.6144	.6129
3.40	.6114	.6099	.6085	.6070	.6055	.6041	.6026	.6012	.5997	.5983	.5968	.5954
3.60	.5940	.5925	.5911	.5897	.5883	.5868	.5854	.5840	.5826	.5812	.5798	.5784
3.80	.5770	.5756	.5742	.5729	.5715	.5701	.5687	.5674	.5660	.5646	.5633	.5619
4.00	.5606	.5592	.5579	.5565	.5552	.5538	.5525	.5512	.5498	.5485	.5472	.5459
4.20	.5446	.5433	.5419	.5406	.5393	.5380	.5367	.5354	.5342	.5329	.5316	.5303
4.40	.5290	.5278	.5265	.5252	.5240	.5227	.5214	.5202	.5189	.5177	.5164	.5152
4.60	.5139	.5127	.5115	.5102	.5090	.5078	.5066	.5053	.5041	.5029	.5017	.5005
4.80	.4993	.4981	.4969	.4957	.4945	.4933	.4921	.4909	.4897	.4886	.4874	.4862

TL - 207

HALF-LIFE 4.79 MINUTES CALCULATION INTERVAL 1.0 SECONDS

	SECONDS											
MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
5.00	.4850	.4839	.4827	.4815	.4804	.4792	.4781	.4769	.4758	.4746	.4735	.4723
5.20	.4712	.4701	.4689	.4678	.4667	.4655	.4644	.4633	.4622	.4611	.4600	.4589
5.40	.4578	.4567	.4556	.4545	.4534	.4523	.4512	.4501	.4490	.4479	.4468	.4458
5.60	.4447	.4436	.4426	.4415	.4404	.4394	.4383	.4373	.4362	.4351	.4341	.4331
5.80	.4320	.4310	.4299	.4289	.4279	.4268	.4258	.4248	.4238	.4227	.4217	.4207
6.00	.4197	.4187	.4177	.4167	.4157	.4147	.4137	.4127	.4117	.4107	.4097	.4087
6.20	.4077	.4067	.4058	.4048	.4038	.4028	.4019	.4009	.3999	.3990	.3980	.3970
6.40	.3961	.3951	.3942	.3932	.3923	.3913	.3904	.3895	.3885	.3876	.3866	.3857
6.60	.3848	.3839	.3829	.3820	.3811	.3802	.3793	.3783	.3774	.3765	.3756	.3747
6.80	.3738	.3729	.3720	.3711	.3702	.3693	.3684	.3676	.3667	.3658	.3649	.3640
7.00	.3631	.3623	.3614	.3605	.3597	.3588	.3579	.3571	.3562	.3553	.3545	.3536
7.20	.3528	.3519	.3511	.3502	.3494	.3486	.3477	.3469	.3460	.3452	.3444	.3436
7.40	.3427	.3419	.3411	.3403	.3394	.3386	.3378	.3370	.3362	.3354	.3346	.3338
7.60	.3329	.3321	.3313	.3305	.3297	.3290	.3282	.3274	.3266	.3258	.3250	.3242
7.80	.3234	.3227	.3219	.3211	.3203	.3196	.3188	.3180	.3173	.3165	.3157	.3150
8.00	.3142	.3135	.3127	.3120	.3112	.3105	.3097	.3090	.3082	.3075	.3067	.3060
8.20	.3053	.3045	.3038	.3031	.3023	.3016	.3009	.3001	.2994	.2987	.2980	.2973
8.40	.2965	.2958	.2951	.2944	.2937	.2930	.2923	.2916	.2909	.2902	.2895	.2888
8.60	.2881	.2874	.2867	.2860	.2853	.2846	.2840	.2833	.2826	.2819	.2812	.2805
8.80	.2799	.2792	.2785	.2779	.2772	.2765	.2759	.2752	.2745	.2739	.2732	.2725
9.00	.2719	.2712	.2706	.2699	.2693	.2686	.2680	.2673	.2667	.2661	.2654	.2648
9.20	.2641	.2635	.2629	.2622	.2616	.2610	.2603	.2597	.2591	.2585	.2578	.2572
9.40	.2566	.2560	.2554	.2547	.2541	.2535	.2529	.2523	.2517	.2511	.2505	.2499
9.60	.2493	.2487	.2481	.2475	.2469	.2463	.2457	.2451	.2445	.2439	.2433	.2428
9.80	.2422	.2416	.2410	.2404	.2398	.2393	.2387	.2381	.2375	.2370	.2364	.2358
10.00	.2353	.2347	.2341	.2336	.2330	.2324	.2319	.2313	.2308	.2302	.2297	.2291
10.20	.2285	.2280	.2274	.2269	.2264	.2258	.2253	.2247	.2242	.2236	.2231	.2226
10.40	.2220	.2215	.2210	.2204	.2199	.2194	.2188	.2183	.2178	.2173	.2167	.2162
10.60	.2157	.2152	.2147	.2141	.2136	.2131	.2126	.2121	.2116	.2111	.2106	.2100
10.80	.2095	.2090	.2085	.2080	.2075	.2070	.2065	.2060	.2055	.2050	.2045	.2041
11.00	.2036	.2031	.2026	.2021	.2016	.2011	.2006	.2002	.1997	.1992	.1987	.1982
11.20	.1978	.1973	.1968	.1963	.1959	.1954	.1949	.1944	.1940	.1935	.1930	.1926
11.40	.1921	.1917	.1912	.1907	.1903	.1898	.1894	.1889	.1884	.1880	.1875	.1871
11.60	.1866	.1862	.1857	.1853	.1848	.1844	.1840	.1835	.1831	.1826	.1822	.1817
11.80	.1813	.1809	.1804	.1800	.1796	.1791	.1787	.1783	.1778	.1774	.1770	.1766
12.00	.1761	.1757	.1753	.1749	.1744	.1740	.1736	.1732	.1728	.1724	.1719	.1715
12.20	.1711	.1707	.1703	.1699	.1695	.1691	.1687	.1682	.1678	.1674	.1670	.1666
12.40	.1662	.1658	.1654	.1650	.1646	.1642	.1638	.1634	.1631	.1627	.1623	.1619
12.60	.1615	.1611	.1607	.1603	.1599	.1596	.1592	.1588	.1584	.1580	.1576	.1573
12.80	.1569	.1565	.1561	.1558	.1554	.1550	.1546	.1543	.1539	.1535	.1531	.1528
13.00	.1524	.1520	.1517	.1513	.1509	.1506	.1502	.1499	.1495	.1491	.1488	.1484
13.20	.1481	.1477	.1473	.1470	.1466	.1463	.1459	.1456	.1452	.1449	.1445	.1442
13.40	.1438	.1435	.1431	.1428	.1425	.1421	.1418	.1414	.1411	.1407	.1404	.1401
13.60	.1397	.1394	.1391	.1387	.1384	.1381	.1377	.1374	.1371	.1367	.1364	.1361
13.80	.1357	.1354	.1351	.1348	.1344	.1341	.1338	.1335	.1332	.1328	.1325	.1322
14.00	.1319	.1316	.1312	.1309	.1306	.1303	.1300	.1297	.1294	.1290	.1287	.1284
14.20	.1281	.1278	.1275	.1272	.1269	.1266	.1263	.1260	.1257	.1254	.1251	.1248
14.40	.1245	.1242	.1239	.1236	.1233	.1230	.1227	.1224	.1221	.1218	[illegible]	.1212
14.60	.1209	.1206	.1203	.1200	.1197	.1195	.1192	.1189	.1186	.1183	.1180	.1177
14.80	.1175	.1172	.1169	.1166	.1163	.1161	.1158	.1155	.1152	.1149	.1147	.1144
15.00	.1141	.1138	.1136	.1133	.1130	.1127	.1125	.1122	.1119	.1117	.1114	.1111
15.20	.1109	.1106	.1103	.1101	.1098	.1095	.1093	.1090	.1087	.1085	.1082	.1080
15.40	.1077	.1074	.1072	.1069	.1067	.1064	.1061	.1059	.1056	.1054	.1051	.1049
15.60	.1046	.1044	.1041	.1039	.1036	.1034	.1031	.1029	.1026	.1024	.1021	.1019
15.80	.1016	.1014	.1011	.1009	.1007	.1004	.1002	.0999	.0997	.0995	.0992	.0990

TL - 207

HALF-LIFE 4.79 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
						SECONDS						
16.00	.0987	.0985	.0983	.0980	.0978	.0976	.0973	.0971	.0968	.0966	.0964	.0962
16.20	.0959	.0957	.0955	.0952	.0950	.0948	.0945	.0943	.0941	.0939	.0936	.0934
16.40	.0932	.0930	.0927	.0925	.0923	.0921	.0918	.0916	.0914	.0912	.0910	.0907
16.60	.0905	.0903	.0901	.0899	.0897	.0894	.0892	.0890	.0888	.0886	.0884	.0882
16.80	.0879	.0877	.0875	.0873	.0871	.0869	.0867	.0865	.0863	.0861	.0858	.0856
17.00	.0854	.0852	.0850	.0848	.0846	.0844	.0842	.0840	.0838	.0836	.0834	.0832
17.20	.0830	.0828	.0826	.0824	.0822	.0820	.0818	.0816	.0814	.0812	.0810	.0808
17.40	.0806	.0804	.0802	.0800	.0799	.0797	.0795	.0793	.0791	.0789	.0787	.0785

TL - 208

HALF-LIFE 3.10 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
						SECONDS						
0.00	1.0000	.9963	.9926	.9889	.9852	.9815	.9779	.9743	.9706	.9670	.9634	.9598
.20	.9563	.9527	.9492	.9456	.9421	.9386	.9351	.9316	.9282	.9247	.9213	.9179
.40	.9144	.9110	.9077	.9043	.9009	.8976	.8942	.8909	.8876	.8843	.8810	.8777
.60	.8745	.8712	.8680	.8647	.8615	.8583	.8551	.8519	.8488	.8456	.8425	.8393
.80	.8362	.8331	.8300	.8269	.8238	.8208	.8177	.8147	.8116	.8086	.8056	.8026
1.00	.7996	.7967	.7937	.7907	.7878	.7849	.7820	.7790	.7762	.7733	.7704	.7675
1.20	.7647	.7618	.7590	.7562	.7534	.7506	.7478	.7450	.7422	.7394	.7367	.7340
1.40	.7312	.7285	.7258	.7231	.7204	.7177	.7151	.7124	.7097	.7071	.7045	.7019
1.60	.6992	.6966	.6941	.6915	.6889	.6863	.6838	.6812	.6787	.6762	.6737	.6712
1.80	.6687	.6662	.6637	.6612	.6588	.6563	.6539	.6514	.6490	.6466	.6442	.6418
2.00	.6394	.6370	.6347	.6323	.6300	.6276	.6253	.6230	.6206	.6183	.6160	.6137
2.20	.6115	.6092	.6069	.6047	.6024	.6002	.5979	.5957	.5935	.5913	.5891	.5869
2.40	.5847	.5825	.5804	.5782	.5761	.5739	.5718	.5697	.5675	.5654	.5633	.5612
2.60	.5591	.5571	.5550	.5529	.5509	.5488	.5468	.5447	.5427	.5407	.5387	.5367
2.80	.5347	.5327	.5307	.5287	.5268	.5248	.5229	.5209	.5190	.5171	.5151	.5132
3.00	.5113	.5094	.5075	.5056	.5037	.5019	.5000	.4981	.4963	.4944	.4926	.4908
3.20	.4889	.4871	.4853	.4835	.4817	.4799	.4781	.4764	.4746	.4728	.4711	.4693
3.40	.4676	.4658	.4641	.4624	.4606	.4589	.4572	.4555	.4538	.4521	.4505	.4486
3.60	.4471	.4454	.4438	.4421	.4405	.4389	.4372	.4356	.4340	.4324	.4308	.4292
3.80	.4276	.4260	.4244	.4228	.4212	.4197	.4181	.4165	.4150	.4135	.4119	.4104
4.00	.4089	.4073	.4058	.4043	.4028	.4013	.3998	.3983	.3969	.3954	.3939	.3924
4.20	.3910	.3895	.3881	.3866	.3852	.3838	.3823	.3809	.3795	.3781	.3767	.3753
4.40	.3739	.3725	.3711	.3697	.3683	.3670	.3656	.3643	.3629	.3615	.3602	.3589
4.60	.3575	.3562	.3549	.3536	.3522	.3509	.3496	.3483	.3470	.3457	.3444	.3432
4.80	.3419	.3406	.3394	.3381	.3368	.3356	.3343	.3331	.3318	.3306	.3294	.3282
5.00	.3269	.3257	.3245	.3233	.3221	.3209	.3197	.3185	.3173	.3162	.3150	.3138
5.20	.3126	.3115	.3103	.3092	.3080	.3069	.3057	.3046	.3035	.3023	.3012	.3001
5.40	.2990	.2979	.2967	.2956	.2945	.2934	.2924	.2913	.2902	.2891	.2880	.2870
5.60	.2859	.2848	.2838	.2827	.2817	.2806	.2796	.2785	.2775	.2765	.2754	.2744
5.80	.2734	.2724	.2714	.2704	.2693	.2683	.2673	.2664	.2654	.2644	.2634	.2624
6.00	.2614	.2605	.2595	.2585	.2576	.2566	.2557	.2547	.2538	.2528	.2519	.2509
6.20	.2500	.2491	.2481	.2472	.2463	.2454	.2445	.2436	.2427	.2418	.2409	.2400
6.40	.2391	.2382	.2373	.2364	.2355	.2347	.2338	.2329	.2320	.2312	.2303	.2295
6.60	.2286	.2278	.2269	.2261	.2252	.2244	.2236	.2227	.2219	.2211	.2202	.2194
6.80	.2186	.2178	.2170	.2162	.2154	.2146	.2138	.2130	.2122	.2114	.2106	.2098
7.00	.2091	.2083	.2075	.2067	.2060	.2052	.2044	.2037	.2029	.2022	.2014	.2007
7.20	.1999	.1992	.1984	.1977	.1970	.1962	.1955	.1948	.1940	.1933	.1926	.1919
7.40	.1912	.1905	.1897	.1890	.1883	.1876	.1869	.1862	.1856	.1849	.1842	.1835
7.60	.1828	.1821	.1814	.1808	.1801	.1794	.1788	.1781	.1774	.1768	.1761	.1755
7.80	.1748	.1742	.1735	.1729	.1722	.1716	.1709	.1703	.1697	.1690	.1684	.1678

TL - 208

HALF-LIFE 3.10 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
8.00	.1672	.1665	.1659	.1653	.1647	.1641	.1635	.1629	.1623	.1617	.1611	.1605
8.20	.1599	.1593	.1587	.1581	.1575	.1569	.1563	.1557	.1552	.1546	.1540	.1534
8.40	.1529	.1523	.1517	.1512	.1506	.1500	.1495	.1489	.1484	.1478	.1473	.1467
8.60	.1462	.1456	.1451	.1446	.1440	.1435	.1429	.1424	.1419	.1414	.1408	.1403
8.80	.1398	.1393	.1387	.1382	.1377	.1372	.1367	.1362	.1357	.1352	.1347	.1342
9.00	.1337	.1332	.1327	.1322	.1317	.1312	.1307	.1302	.1297	.1293	.1288	.1283
9.20	.1278	.1274	.1269	.1264	.1259	.1255	.1250	.1245	.1241	.1236	.1232	.1227
9.40	.1222	.1218	.1213	.1209	.1204	.1200	.1195	.1191	.1186	.1182	.1178	.1173
9.60	.1169	.1165	.1160	.1156	.1152	.1147	.1143	.1139	.1135	.1130	.1126	.1122
9.80	.1118	.1114	.1109	.1105	.1101	.1097	.1093	.1089	.1085	.1081	.1077	.1073
10.00	.1069	.1065	.1061	.1057	.1053	.1049	.1045	.1041	.1037	.1034	.1030	.1026
10.20	.1022	.1018	.1015	.1011	.1007	.1003	.1000	.0996	.0992	.0988	.0985	.0981
10.40	.0977	.0974	.0970	.0967	.0963	.0959	.0956	.0952	.0949	.0945	.0942	.0938
10.60	.0935	.0931	.0928	.0924	.0921	.0917	.0914	.0911	.0907	.0904	.0901	.0897
10.80	.0894	.0890	.0887	.0884	.0881	.0877	.0874	.0871	.0868	.0864	.0861	.0858
11.00	.0855	.0852	.0848	.0845	.0842	.0839	.0836	.0833	.0830	.0827	.0823	.0820
11.20	.0817	.0814	.0811	.0808	.0805	.0802	.0799	.0796	.0793	.0790	.0787	.0785

TL - 209

HALF-LIFE 2.20 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9948	.9896	.9844	.9792	.9741	.9690	.9639	.9589	.9538	.9488	.9439
.20	.9389	.9340	.9291	.9243	.9194	.9146	.9098	.9050	.9003	.8956	.8909	.8862
.40	.8816	.8770	.8724	.8678	.8633	.8587	.8542	.8498	.8453	.8409	.8365	.8321
.60	.8278	.8234	.8191	.8148	.8105	.8063	.8021	.7979	.7937	.7895	.7854	.7813
.80	.7772	.7731	.7691	.7651	.7610	.7571	.7531	.7492	.7452	.7413	.7374	.7336
1.00	.7297	.7259	.7221	.7183	.7146	.7108	.7071	.7034	.6997	.6961	.6924	.6888
1.20	.6852	.6816	.6780	.6745	.6709	.6674	.6639	.6604	.6570	.6535	.6501	.6467
1.40	.6433	.6400	.6366	.6333	.6300	.6267	.6234	.6201	.6169	.6136	.6104	.6072
1.60	.6040	.6009	.5977	.5946	.5915	.5884	.5853	.5822	.5792	.5762	.5731	.5701
1.80	.5672	.5642	.5612	.5583	.5554	.5525	.5496	.5467	.5438	.5410	.5381	.5353
2.00	.5325	.5297	.5270	.5242	.5215	.5187	.5160	.5133	.5106	.5079	.5053	.5026
2.20	.5000	.4974	.4948	.4922	.4896	.4870	.4845	.4820	.4794	.4769	.4744	.4719
2.40	.4695	.4670	.4646	.4621	.4597	.4573	.4549	.4525	.4502	.4478	.4454	.4431
2.60	.4408	.4385	.4362	.4339	.4316	.4294	.4271	.4249	.4227	.4204	.4182	.4161
2.80	.4139	.4117	.4096	.4074	.4053	.4032	.4010	.3989	.3969	.3948	.3927	.3906
3.00	.3886	.3866	.3845	.3825	.3805	.3785	.3765	.3746	.3726	.3707	.3687	.3668
3.20	.3649	.3630	.3611	.3592	.3573	.3554	.3536	.3517	.3499	.3480	.3462	.3444
3.40	.3426	.3408	.3390	.3372	.3355	.3337	.3320	.3302	.3285	.3268	.3251	.3234
3.60	.3217	.3200	.3183	.3166	.3150	.3133	.3117	.3101	.3084	.3068	.3052	.3036
3.80	.3020	.3004	.2989	.2973	.2957	.2942	.2927	.2911	.2896	.2881	.2866	.2851
4.00	.2836	.2821	.2806	.2791	.2777	.2762	.2748	.2733	.2719	.2705	.2691	.2677
4.20	.2663	.2649	.2635	.2621	.2607	.2594	.2580	.2567	.2553	.2540	.2526	.2513
4.40	.2500	.2487	.2474	.2461	.2448	.2435	.2422	.2410	.2397	.2385	.2372	.2360
4.60	.2347	.2335	.2323	.2311	.2299	.2286	.2275	.2263	.2251	.2239	.2227	.2216
4.80	.2204	.2192	.2181	.2170	.2158	.2147	.2136	.2124	.2113	.2102	.2091	.2080
5.00	.2069	.2059	.2048	.2037	.2026	.2016	.2005	.1995	.1984	.1974	.1964	.1953
5.20	.1943	.1933	.1923	.1913	.1903	.1893	.1883	.1873	.1863	.1853	.1844	.1834
5.40	.1824	.1815	.1805	.1796	.1786	.1777	.1768	.1759	.1749	.1740	.1731	.1722
5.60	.1713	.1704	.1695	.1686	.1677	.1669	.1660	.1651	.1642	.1634	.1625	.1617
5.80	.1608	.1600	.1592	.1583	.1575	.1567	.1558	.1550	.1542	.1534	.1526	.1518

TL - 209

HALF-LIFF 2.20 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
6.00	.1510	.1502	.1494	.1487	.1479	.1471	.1463	.1456	.1448	.1440	.1433	.1425
6.20	.1418	.1410	.1403	.1396	.1388	.1381	.1374	.1367	.1360	.1352	.1345	.1338
6.40	.1331	.1324	.1317	.1310	.1304	.1297	.1290	.1283	.1277	.1270	.1263	.1257
6.60	.1250	.1243	.1237	.1230	.1224	.1218	.1211	.1205	.1199	.1192	.1186	.1180
6.80	.1174	.1168	.1161	.1155	.1149	.1143	.1137	.1131	.1125	.1119	.1114	.1108
7.00	.1102	.1096	.1090	.1085	.1079	.1073	.1068	.1062	.1057	.1051	.1046	.1040
7.20	.1035	.1029	.1024	.1019	.1013	.1008	.1003	.0997	.0992	.0987	.0982	.0977
7.40	.0972	.0966	.0961	.0956	.0951	.0946	.0941	.0936	.0932	.0927	.0922	.0917
7.60	.0912	.0907	.0903	.0898	.0893	.0889	.0884	.0879	.0875	.0870	.0866	.0861
7.80	.0856	.0852	.0848	.0843	.0839	.0834	.0830	.0826	.0821	.0817	.0813	.0808
8.00	.0804	.0800	.0796	.0792	.0787	.0783	.0779	.0775	.0771	.0767	.0763	.0759

TL - 210

HALF-LIFE 1.32 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9913	.9826	.9741	.9656	.9572	.9488	.9406	.9324	.9243	.9162	.9082
.20	.9003	.8925	.8847	.8770	.8693	.8618	.8542	.8468	.8394	.8321	.8249	.8177
.40	.8105	.8035	.7965	.7895	.7827	.7758	.7691	.7624	.7557	.7492	.7426	.7362
.60	.7297	.7234	.7171	.7108	.7046	.6985	.6924	.6864	.6804	.6745	.6686	.6628
.80	.6570	.6513	.6456	.6400	.6344	.6289	.6234	.6179	.6126	.6072	.6019	.5967
1.00	.5915	.5863	.5812	.5762	.5711	.5662	.5612	.5563	.5515	.5467	.5419	.5372
1.20	.5325	.5279	.5233	.5187	.5142	.5097	.5053	.5009	.4965	.4922	.4879	.4836
1.40	.4794	.4753	.4711	.4670	.4629	.4589	.4549	.4509	.4470	.4431	.4393	.4354
1.60	.4316	.4279	.4241	.4204	.4168	.4132	.4096	.4060	.4024	.3989	.3955	.3920
1.80	.3886	.3852	.3819	.3785	.3752	.3720	.3687	.3655	.3623	.3592	.3560	.3529
2.00	.3499	.3468	.3438	.3408	.3378	.3349	.3320	.3291	.3262	.3234	.3205	.3177
2.20	.3150	.3122	.3095	.3068	.3041	.3015	.2989	.2963	.2937	.2911	.2886	.2861
2.40	.2836	.2811	.2787	.2762	.2738	.2714	.2691	.2667	.2644	.2621	.2598	.2576
2.60	.2553	.2531	.2509	.2487	.2465	.2444	.2422	.2401	.2380	.2360	.2339	.2319
2.80	.2299	.2279	.2259	.2239	.2219	.2200	.2181	.2162	.2143	.2124	.2106	.2088
3.00	.2069	.2051	.2033	.2016	. 998	.1981	.1964	.1946	.1929	.1913	.1896	.1879
3.20	.1863	.1847	.1831	.1815	.1799	.1783	.1768	.1752	.1737	.1722	.1707	.1692
3.40	.1677	.1663	.1648	.1634	.1620	.1606	.1592	.1578	.1564	.1550	.1537	.1523
3.60	.1510	.1497	.1484	.1471	.1458	.1445	.1433	.1420	.1408	.1396	.1384	.1372
3.80	.1360	.1348	.1336	.1324	.1313	.1301	.1290	.1279	.1268	.1257	.1246	.1235
4.00	.1224	.1213	.1203	.1192	.1182	.1172	.1161	.1151	.1141	.1131	.1121	.1112
4.20	.1102	.1092	.1083	.1073	.1064	.1055	.1046	.1037	.1027	.1019	.1010	.1001
4.40	.0992	.0983	.0975	.0966	.0958	.0950	.0941	.0933	.0925	.0917	.0909	.0901
4.60	.0893	.0885	.0878	.0870	.0862	.0855	.0848	.0840	.0833	.0826	.0818	.0811
4.80	.0804	.0797	.0790	.0783	.0777	.0770	.0763	.0756	.0750	.0743	.0737	.0730

PH - 203

HALF-LIFF 52.10 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9934	.9868	.9802	.9737	.9673	.9609	.9545	.9482	.9419	.9356	.9294
6.00	.9233	.9172	.9111	.9050	.8990	.8931	.8872	.8813	.8754	.8696	.8639	.8581
12.00	.8524	.8468	.8412	.8356	.8301	.8246	.8191	.8137	.8083	.8029	.7976	.7923
18.00	.7870	.7818	.7766	.7715	.7664	.7613	.7562	.7512	.7463	.7413	.7364	.7315
24.00	.7267	.7218	.7171	.7123	.7076	.7029	.6982	.6936	.6890	.6844	.6799	.6754

PB - 203

HALF-LIFE 52.10 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	MINUTES 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
30.00	.6709	.6665	.6620	.6577	.6533	.6490	.6447	.6404	.6361	.6319	.6277	.6236
36.00	.6194	.6153	.6112	.6072	.6032	.5992	.5952	.5913	.5873	.5834	.5796	.5757
42.00	.5719	.5681	.5644	.5606	.5569	.5532	.5495	.5459	.5423	.5387	.5351	.5316
48.00	.5280	.5245	.5211	.5176	.5142	.5108	.5074	.5040	.5007	.4973	.4940	.4908
54.00	.4875	.4843	.4811	.4779	.4747	.4716	.4684	.4653	.4623	.4592	.4561	.4531
60.00	.4501	.4471	.4442	.4412	.4383	.4354	.4325	.4296	.4268	.4240	.4211	.4184
66.00	.4156	.4128	.4101	.4074	.4047	.4020	.3993	.3967	.3940	.3914	.3888	.3863
72.00	.3837	.3812	.3786	.3761	.3736	.3711	.3687	.3662	.3638	.3614	.3590	.3566
78.00	.3543	.3519	.3496	.3473	.3450	.3427	.3404	.3381	.3359	.3337	.3315	.3293
84.00	.3271	.3249	.3228	.3206	.3185	.3164	.3143	.3122	.3101	.3081	.3060	.3040
90.00	.3020	.3000	.2980	.2960	.2941	.2921	.2902	.2882	.2863	.2844	.2826	.2807
96.00	.2788	.2770	.2751	.2733	.2715	.2697	.2679	.2661	.2644	.2626	.2609	.2591
102.00	.2574	.2557	.2540	.2523	.2507	.2490	.2474	.2457	.2441	.2425	.2409	.2393
108.00	.2377	.2361	.2345	.2330	.2314	.2299	.2284	.2269	.2254	.2239	.2224	.2209
114.00	.2194	.2180	.2165	.2151	.2137	.2123	.2109	.2095	.2081	.2067	.2053	.2040
120.00	.2026	.2013	.1999	.1986	.1973	.1960	.1947	.1934	.1921	.1908	.1896	.1883
126.00	.1871	.1858	.1846	.1834	.1821	.1809	.1797	.1785	.1774	.1762	.1750	.1739
132.00	.1727	.1716	.1704	.1693	.1682	.1671	.1660	.1649	.1638	.1627	.1616	.1605
138.00	.1595	.1584	.1574	.1563	.1553	.1542	.1532	.1522	.1512	.1502	.1492	.1482
144.00	.1472	.1462	.1453	.1443	.1434	.1424	.1415	.1405	.1396	.1387	.1377	.1368
150.00	.1359	.1350	.1341	.1332	.1324	.1315	.1306	.1297	.1289	.1280	.1272	.1263
156.00	.1255	.1247	.1238	.1230	.1222	.1214	.1206	.1198	.1190	.1182	.1174	.1166
162.00	.1159	.1151	.1143	.1136	.1128	.1121	.1113	.1106	.1099	.1091	.1084	.1077
168.00	.1070	.1063	.1056	.1049	.1042	.1035	.1028	.1021	.1014	.1008	.1001	.0994
174.00	.0988	.0981	.0975	.0968	.0962	.0955	.0949	.0943	.0937	.0930	.0924	.0918
180.00	.0912	.0906	.0900	.0894	.0888	.0882	.0876	.0870	.0865	.0859	.0853	.0848
186.00	.0842	.0836	.0831	.0825	.0820	.0814	.0809	.0804	.0798	.0793	.0788	.0783

PB - 204M

HALF-LIFE 1.12 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9897	.9796	.9695	.9596	.9497	.9400	.9303	.9208	.9113	.9020	.8927
.20	.8836	.8745	.8655	.8567	.8479	.8392	.8306	.8220	.8136	.8052	.7970	.7888
.40	.7807	.7727	.7648	.7569	.7492	.7415	.7339	.7263	.7189	.7115	.7042	.6970
.60	.6898	.6827	.6757	.6688	.6619	.6551	.6484	.6418	.6352	.6287	.6222	.6158
.80	.6095	.6033	.5971	.5909	.5849	.5789	.5729	.5670	.5612	.5555	.5498	.5441
1.00	.5385	.5330	.5276	.5221	.5168	.5115	.5062	.5010	.4959	.4908	.4858	.4808
1.20	.4758	.4710	.4661	.4613	.4566	.4519	.4473	.4427	.4382	.4337	.4292	.4248
1.40	.4204	.4161	.4119	.4076	.4035	.3993	.3952	.3912	.3871	.3832	.3792	.3754
1.60	.3715	.3677	.3639	.3602	.3565	.3528	.3492	.3456	.3421	.3386	.3351	.3317
1.80	.3282	.3249	.3215	.3182	.3150	.3117	.3085	.3054	.3022	.2991	.2961	.2930
2.00	.2900	.2871	.2841	.2812	.2783	.2755	.2726	.2698	.2671	.2643	.2616	.2589
2.20	.2563	.2536	.2510	.2485	.2459	.2434	.2409	.2384	.2360	.2335	.2312	.2288
2.40	.2264	.2241	.2218	.2195	.2173	.2150	.2128	.2107	.2085	.2064	.2042	.2021
2.60	.2001	.1980	.1960	.1940	.1920	.1900	.1881	.1861	.1842	.1823	.1805	.1786
2.80	.1768	.1750	.1732	.1714	.1696	.1679	.1662	.1645	.1628	.1611	.1595	.1578
3.00	.1562	.1546	.1530	.1514	.1499	.1483	.1468	.1453	.1438	.1423	.1409	.1394
3.20	.1380	.1366	.1352	.1338	.1324	.1311	.1297	.1284	.1271	.1258	.1245	.1232
3.40	.1219	.1207	.1195	.1182	.1170	.1158	.1146	.1134	.1123	.1111	.1100	.1089
3.60	.1077	.1066	.1055	.1045	.1034	.1023	.1013	.1002	.0992	.0982	.0972	.0962
3.80	.0952	.0942	.0933	.0923	.0914	.0904	.0895	.0886	.0877	.0868	.0859	.0850

PB - 204M

HALF-LIFE 1.12 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
4.00	.0841	.0833	.0824	.0816	.0807	.0799	.0791	.0783	.0775	.0767	.0759	.0751

PB - 209

HALF-LIFE 3.30 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9965	.9930	.9896	.9861	.9826	.9792	.9758	.9724	.9690	.9656	.9622
.20	.9589	.9555	.9522	.9488	.9455	.9422	.9389	.9356	.9324	.9291	.9259	.9226
.40	.9194	.9162	.9130	.9098	.9066	.9035	.9003	.8972	.8940	.8909	.8878	.8847
.60	.8816	.8785	.8754	.8724	.8693	.8663	.8633	.8603	.8572	.8542	.8513	.8483
.80	.8453	.8424	.8394	.8365	.8336	.8307	.8278	.8249	.8220	.8191	.8162	.8134
1.00	.8105	.8077	.8049	.8021	.7993	.7965	.7937	.7909	.7882	.7854	.7827	.7799
1.20	.7772	.7745	.7718	.7691	.7664	.7637	.7610	.7584	.7557	.7531	.7505	.7478
1.40	.7452	.7426	.7400	.7374	.7349	.7323	.7297	.7272	.7246	.7221	.7196	.7171
1.60	.7146	.7121	.7096	.7071	.7046	.7022	.6997	.6973	.6948	.6924	.6900	.6876
1.80	.6852	.6828	.6804	.6780	.6756	.6733	.6709	.6686	.6663	.6639	.6616	.6593
2.00	.6570	.6547	.6524	.6501	.6479	.6456	.6433	.6411	.6388	.6366	.6344	.6322
2.20	.6300	.6278	.6256	.6234	.6212	.6190	.6169	.6147	.6126	.6104	.6083	.6062
2.40	.6040	.6019	.5998	.5977	.5956	.5936	.5915	.5894	.5874	.5853	.5833	.5812
2.60	.5792	.5772	.5752	.5731	.5711	.5691	.5672	.5652	.5632	.5612	.5593	.5573
2.80	.5554	.5534	.5515	.5496	.5476	.5457	.5438	.5419	.5400	.5381	.5363	.5344
3.00	.5325	.5307	.5288	.5270	.5251	.5233	.5215	.5196	.5178	.5160	.5142	.5124
3.20	.5106	.5088	.5071	.5053	.5035	.5018	.5000	.4983	.4965	.4948	.4930	.4913
3.40	.4896	.4879	.4862	.4845	.4828	.4811	.4794	.4778	.4761	.4744	.4728	.4711
3.60	.4695	.4678	.4662	.4646	.4629	.4613	.4597	.4581	.4565	.4549	.4533	.4517
3.80	.4502	.4486	.4470	.4454	.4439	.4423	.4408	.4393	.4377	.4362	.4347	.4331
4.00	.4316	.4301	.4286	.4271	.4256	.4241	.4227	.4212	.4197	.4182	.4168	.4153
4.20	.4139	.4124	.4110	.4096	.4081	.4067	.4053	.4039	.4024	.4010	.3996	.3982
4.40	.3969	.3955	.3941	.3927	.3913	.3900	.3886	.3872	.3859	.3845	.3832	.3819
4.60	.3805	.3792	.3779	.3765	.3752	.3739	.3726	.3713	.3700	.3687	.3674	.3661
4.80	.3649	.3636	.3623	.3611	.3598	.3585	.3573	.3560	.3548	.3536	.3523	.3511
5.00	.3499	.3486	.3474	.3462	.3450	.3438	.3426	.3414	.3402	.3390	.3378	.3366
5.20	.3355	.3343	.3331	.3320	.3308	.3296	.3285	.3273	.3262	.3251	.3239	.3228
5.40	.3217	.3205	.3194	.3183	.3172	.3161	.3150	.3139	.3128	.3117	.3106	.3095
5.60	.3084	.3074	.3063	.3052	.3041	.3031	.3020	.3010	.2999	.2989	.2978	.2968
5.80	.2957	.2947	.2937	.2927	.2916	.2906	.2896	.2886	.2876	.2866	.2856	.2846
6.00	.2836	.2826	.2816	.2806	.2796	.2787	.2777	.2767	.2757	.2748	.2738	.2729
6.20	.2719	.2710	.2700	.2691	.2681	.2672	.2663	.2653	.2644	.2635	.2626	.2616
6.40	.2607	.2598	.2589	.2580	.2571	.2562	.2553	.2544	.2535	.2526	.2518	.2509
6.60	.2500	.2491	.2483	.2474	.2465	.2457	.2448	.2439	.2431	.2422	.2414	.2406
6.80	.2397	.2389	.2380	.2372	.2364	.2356	.2347	.2339	.2331	.2323	.2315	.2307
7.00	.2299	.2291	.2283	.2275	.2267	.2259	.2251	.2243	.2235	.2227	.2219	.2212
7.20	.2204	.2196	.2189	.2181	.2173	.2166	.2158	.2151	.2143	.2136	.2128	.2121
7.40	.2113	.2106	.2099	.2091	.2084	.2077	.2069	.2062	.2055	.2048	.2041	.2033
7.60	.2026	.2019	.2012	.2005	.1998	.1991	.1984	.1977	.1970	.1964	.1957	.1950
7.80	.1943	.1936	.1929	.1923	.1916	.1909	.1903	.1896	.1889	.1883	.1876	.1870
8.00	.1863	.1857	.1850	.1844	.1837	.1831	.1824	.1818	.1812	.1805	.1799	.1793
8.20	.1786	.1780	.1774	.1768	.1762	.1755	.1749	.1743	.1737	.1731	.1725	.1719
8.40	.1713	.1707	.1701	.1695	.1689	.1683	.1677	.1671	.1666	.1660	.1654	.1648
8.60	.1642	.1637	.1631	.1625	.1620	.1614	.1608	.1603	.1597	.1592	.1586	.1580
8.80	.1575	.1569	.1564	.1558	.1553	.1548	.1542	.1537	.1531	.1526	.1521	.1515

PB - 209

HALF-LIFE 3.30 HOURS CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
9.00	.1510	.1505	.1500	.1494	.1489	.1484	.1479	.1474	.1468	.1463	.1458	.1453
9.20	.1448	.1443	.1438	.1433	.1428	.1423	.1418	.1413	.1408	.1403	.1398	.1393
9.40	.1388	.1384	.1379	.1374	.1369	.1364	.1360	.1355	.1350	.1345	.1341	.1336
9.60	.1331	.1327	.1322	.1317	.1313	.1308	.1304	.1299	.1295	.1290	.1286	.1281
9.80	.1277	.1272	.1268	.1263	.1259	.1254	.1250	.1246	.1241	.1237	.1233	.1228
10.00	.1224	.1220	.1215	.1211	.1207	.1203	.1199	.1194	.1190	.1186	.1182	.1178
10.20	.1174	.1170	.1165	.1161	.1157	.1153	.1149	.1145	.1141	.1137	.1133	.1129
10.40	.1125	.1121	.1118	.1114	.1110	.1106	.1102	.1098	.1094	.1090	.1087	.1083
10.60	.1079	.1075	.1072	.1068	.1064	.1060	.1057	.1053	.1049	.1046	.1042	.1038
10.80	.1035	.1031	.1027	.1024	.1020	.1017	.1013	.1010	.1006	.1003	.0999	.0996
11.00	.0992	.0989	.0985	.0982	.0978	.0975	.0972	.0968	.0965	.0961	.0958	.0955
11.20	.0951	.0948	.0945	.0941	.0938	.0935	.0932	.0928	.0925	.0922	.0919	.0915
11.40	.0912	.0909	.0906	.0903	.0899	.0896	.0893	.0890	.0887	.0884	.0881	.0878
11.60	.0875	.0872	.0869	.0866	.0862	.0859	.0856	.0853	.0850	.0848	.0845	.0842
11.80	.0839	.0836	.0833	.0830	.0827	.0824	.0821	.0818	.0816	.0813	.0810	.0807
12.00	.0804	.0801	.0799	.0796	.0793	.0790	.0787	.0785	.0782	.0779	.0777	.0774

PB - 210

HALF-LIFE 20.40 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	DAYS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9972	.9944	.9917	.9889	.9861	.9834	.9806	.9779	.9752
300.0	.9725	.9697	.9670	.9643	.9617	.9590	.9563	.9536	.9510	.9483
600.0	.9457	.9430	.9404	.9378	.9352	.9326	.9300	.9274	.9248	.9222
900.0	.9196	.9171	.9145	.9120	.9094	.9069	.9044	.9018	.8993	.8968
1200.0	.8943	.8918	.8893	.8868	.8844	.8819	.8794	.8770	.8745	.8721
1500.0	.8697	.8673	.8648	.8624	.8600	.8576	.8552	.8528	.8505	.8481
1800.0	.8457	.8434	.8410	.8387	.8363	.8340	.8317	.8294	.8270	.8247
2100.0	.8224	.8201	.8179	.8156	.8133	.8110	.8088	.8065	.8043	.8020
2400.0	.7998	.7976	.7953	.7931	.7909	.7887	.7865	.7843	.7821	.7799
2700.0	.7778	.7756	.7734	.7713	.7691	.7670	.7648	.7627	.7606	.7585
3000.0	.7563	.7542	.7521	.7500	.7479	.7458	.7438	.7417	.7396	.7376
3300.0	.7355	.7335	.7314	.7294	.7273	.7253	.7233	.7213	.7193	.7172
3600.0	.7152	.7133	.7113	.7093	.7073	.7053	.7034	.7014	.6994	.6975
3900.0	.6956	.6936	.6917	.6897	.6878	.6859	.6840	.6821	.6802	.6783
4200.0	.6764	.6745	.6726	.6708	.6689	.6670	.6652	.6633	.6615	.6596
4500.0	.6578	.6559	.6541	.6523	.6505	.6486	.6468	.6450	.6432	.6414
4800.0	.6397	.6379	.6361	.6343	.6325	.6308	.6290	.6273	.6255	.6238
5100.0	.6220	.6203	.6186	.6168	.6151	.6134	.6117	.6100	.6083	.6066
5400.0	.6049	.6032	.6015	.5999	.5982	.5965	.5949	.5932	.5915	.5899
5700.0	.5882	.5866	.5850	.5833	.5817	.5801	.5785	.5769	.5752	.5736
6000.0	.5720	.5704	.5689	.5673	.5657	.5641	.5625	.5610	.5594	.5578
6300.0	.5563	.5547	.5532	.5516	.5501	.5486	.5470	.5455	.5440	.5425
6600.0	.5410	.5395	.5380	.5365	.5350	.5335	.5320	.5305	.5290	.5275
6900.0	.5261	.5246	.5231	.5217	.5202	.5188	.5173	.5159	.5144	.5130
7200.0	.5116	.5102	.5087	.5073	.5059	.5045	.5031	.5017	.5003	.4989
7500.0	.4975	.4961	.4947	.4933	.4920	.4906	.4892	.4879	.4865	.4851
7800.0	.4838	.4824	.4811	.4798	.4784	.4771	.4758	.4744	.4731	.4718
8100.0	.4705	.4692	.4678	.4665	.4652	.4639	.4627	.4614	.4601	.4588
8400.0	.4575	.4562	.4550	.4537	.4524	.4512	.4499	.4487	.4474	.4462
8700.0	.4449	.4437	.4424	.4412	.4400	.4387	.4375	.4363	.4351	.4339

PB - 210

HALF-LIFE 20.40 YEARS CALCULATION INTERVAL 30.0 DAYS

	DAYS									
DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
9000.0	.4327	.4315	.4302	.4290	.4279	.4267	.4255	.4243	.4231	.4219
9300.0	.4207	.4196	.4184	.4172	.4161	.4149	.4138	.4126	.4114	.4103
9600.0	.4092	.4080	.4069	.4057	.4046	.4035	.4024	.4012	.4001	.3990
9900.0	.3979	.3968	.3957	.3946	.3935	.3924	.3913	.3902	.3891	.3880
10200.0	.3869	.3858	.3848	.3837	.3826	.3816	.3805	.3794	.3784	.3773
10500.0	.3763	.3752	.3742	.3731	.3721	.3711	.3700	.3690	.3680	.3669
10800.0	.3659	.3649	.3639	.3629	.3618	.3608	.3598	.3588	.3578	.3568
11100.0	.3558	.3548	.3538	.3529	.3519	.3509	.3499	.3489	.3480	.3470
11400.0	.3460	.3451	.3441	.3431	.3422	.3412	.3403	.3393	.3384	.3374
11700.0	.3365	.3356	.3346	.3337	.3328	.3318	.3309	.3300	.3291	.3281
12000.0	.3272	.3263	.3254	.3245	.3236	.3227	.3218	.3209	.3200	.3191
12300.0	.3182	.3173	.3164	.3156	.3147	.3138	.3129	.3121	.3112	.3103
12600.0	.3095	.3086	.3077	.3069	.3060	.3052	.3043	.3035	.3026	.3018
12900.0	.3009	.3001	.2993	.2984	.2976	.2968	.2959	.2951	.2943	.2935
13200.0	.2926	.2918	.2910	.2902	.2894	.2886	.2878	.2870	.2862	.2854
13500.0	.2846	.2838	.2830	.2822	.2814	.2806	.2799	.2791	.2783	.2775
13800.0	.2768	.2760	.2752	.2744	.2737	.2729	.2722	.2714	.2706	.2699
14100.0	.2691	.2684	.2676	.2669	.2661	.2654	.2647	.2639	.2632	.2624
14400.0	.2617	.2610	.2603	.2595	.2588	.2581	.2574	.2566	.2559	.2552
14700.0	.2545	.2538	.2531	.2524	.2517	.2510	.2503	.2496	.2489	.2482
15000.0	.2475	.2468	.2461	.2454	.2447	.2441	.2434	.2427	.2420	.2414
15300.0	.2407	.2400	.2393	.2387	.2380	.2373	.2367	.2360	.2354	.2347
15600.0	.2341	.2334	.2328	.2321	.2315	.2308	.2302	.2295	.2289	.2282
15900.0	.2276	.2270	.2263	.2257	.2251	.2245	.2238	.2232	.2226	.2220
16200.0	.2213	.2207	.2201	.2195	.2189	.2183	.2177	.2171	.2164	.2158
16500.0	.2152	.2146	.2140	.2134	.2129	.2123	.2117	.2111	.2105	.2099
16800.0	.2093	.2087	.2082	.2076	.2070	.2064	.2058	.2053	.2047	.2041
17100.0	.2036	.2030	.2024	.2019	.2013	.2007	.2002	.1996	.1991	.1985
17400.0	.1979	.1974	.1968	.1963	.1957	.1952	.1947	.1941	.1936	.1930
17700.0	.1925	.1920	.1914	.1909	.1904	.1898	.1893	.1888	.1882	.1877
18000.0	.1872	.1867	.1861	.1856	.1851	.1846	.1841	.1836	.1831	.1825
18300.0	.1820	.1815	.1810	.1805	.1800	.1795	.1790	.1785	.1780	.1775
18600.0	.1770	.1765	.1760	.1755	.1751	.1746	.1741	.1736	.1731	.1726
18900.0	.1721	.1717	.1712	.1707	.1702	.1698	.1693	.1688	.1683	.1679
19200.0	.1674	.1669	.1665	.1660	.1655	.1651	.1646	.1642	.1637	.1633
19500.0	.1628	.1623	.1619	.1614	.1610	.1605	.1601	.1596	.1592	.1588
19800.0	.1583	.1579	.1574	.1570	.1566	.1561	.1557	.1552	.1548	.1544
20100.0	.1540	.1535	.1531	.1527	.1522	.1518	.1514	.1510	.1506	.1501
20400.0	.1497	.1493	.1489	.1485	.1481	.1476	.1472	.1468	.1464	.1460
20700.0	.1456	.1452	.1448	.1444	.1440	.1436	.1432	.1428	.1424	.1420
21000.0	.1416	.1412	.1408	.1404	.1400	.1396	.1392	.1388	.1385	.1381
21300.0	.1377	.1373	.1369	.1365	.1362	.1358	.1354	.1350	.1346	.1343
21600.0	.1339	.1335	.1331	.1328	.1324	.1320	.1317	.1313	.1309	.1306
21900.0	.1302	.1298	.1295	.1291	.1288	.1284	.1280	.1277	.1273	.1270
22200.0	.1266	.1263	.1259	.1256	.1252	.1249	.1245	.1242	.1238	.1235
22500.0	.1231	.1228	.1224	.1221	.1218	.1214	.1211	.1207	.1204	.1201
22800.0	.1197	.1194	.1191	.1187	.1184	.1181	.1177	.1174	.1171	.1168
23100.0	.1164	.1161	.1158	.1155	.1151	.1148	.1145	.1142	.1139	.1136
23400.0	.1132	.1129	.1126	.1123	.1120	.1117	.1114	.1110	.1107	.1104
23700.0	.1101	.1098	.1095	.1092	.1089	.1086	.1083	.1080	.1077	.1074
24000.0	.1071	.1068	.1065	.1062	.1059	.1056	.1053	.1050	.1047	.1044
24300.0	.1041	.1038	.1036	.1033	.1030	.1027	.1024	.1021	.1018	.1015
24600.0	.1013	.1010	.1007	.1004	.1001	.0999	.0996	.0993	.0990	.0988
24900.0	.0985	.0982	.0979	.0977	.0974	.0971	.0968	.0966	.0963	.0960
25200.0	.0958	.0955	.0952	.0950	.0947	.0944	.0942	.0939	.0936	.0934

PB - 210

HALF-LIFF 20.40 YEARS CALCULATION INTERVAL 30.0 DAYS

	DAYS									
DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
25500.0	.0931	.0929	.0926	.0923	.0921	.0918	.0916	.0913	.0911	.0908
25800.0	.0906	.0903	.0901	.0898	.0896	.0893	.0891	.0888	.0886	.0883
26100.0	.0881	.0878	.0876	.0873	.0871	.0868	.0866	.0864	.0861	.0859
26400.0	.0856	.0854	.0852	.0849	.0847	.0845	.0842	.0840	.0838	.0835
26700.0	.0833	.0831	.0828	.0826	.0824	.0821	.0819	.0817	.0814	.0812
27000.0	.0810	.0808	.0805	.0803	.0801	.0799	.0796	.0794	.0792	.0790

PB - 210

HALF-LIFF 20.40 YEARS CALCULATION INTERVAL 1.0 YEARS

	YEARS									
YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9666	.9343	.9031	.8729	.8438	.8156	.7883	.7620	.7365
10.0	.7119	.6881	.6652	.6429	.6215	.6007	.5806	.5612	.5425	.5244
20.0	.5068	.4899	.4735	.4577	.4424	.4277	.4134	.3996	.3862	.3733
30.0	.3608	.3488	.3371	.3259	.3150	.3045	.2943	.2845	.2750	.2658
40.0	.2569	.2483	.2400	.2320	.2242	.2168	.2095	.2025	.1957	.1892
50.0	.1829	.1768	.1709	.1652	.1596	.1543	.1492	.1442	.1394	.1347
60.0	.1302	.1259	.1216	.1176	.1137	.1099	.1062	.1026	.0992	.0959
70.0	.0927	.0896	.0866	.0837	.0809	.0782	.0756	.0731	.0706	.0683

PB - 211

HALF-LIFF 36.10 MINUTES CALCULATION INTERVAL 30.0 SECONDS

	SECONDS											
MINUTES	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9904	.9810	.9716	.9623	.9531	.9440	.9350	.9261	.9172	.9085	.8998
6.00	.8912	.8827	.8742	.8659	.8576	.8494	.8413	.8333	.8253	.8174	.8096	.8019
12.00	.7942	.7866	.7791	.7717	.7643	.7570	.7498	.7426	.7355	.7285	.7215	.7146
18.00	.7078	.7010	.6943	.6877	.6811	.6746	.6682	.6618	.6555	.6492	.6430	.6369
24.00	.6308	.6247	.6188	.6129	.6070	.6012	.5955	.5898	.5841	.5786	.5730	.5676
30.00	.5621	.5568	.5514	.5462	.5410	.5358	.5307	.5256	.5206	.5156	.5107	.5058
36.00	.5010	.4962	.4914	.4867	.4821	.4775	.4729	.4684	.4639	.4595	.4551	.4508
42.00	.4464	.4422	.4380	.4338	.4296	.4255	.4215	.4174	.4134	.4095	.4056	.4017
48.00	.3979	.3941	.3903	.3866	.3829	.3792	.3756	.3720	.3685	.3649	.3614	.3580
54.00	.3546	.3512	.3478	.3445	.3412	.3380	.3347	.3315	.3284	.3252	.3221	.3190
60.00	.3160	.3130	.3100	.3070	.3041	.3012	.2983	.2955	.2926	.2898	.2871	.2843
66.00	.2816	.2789	.2762	.2736	.2710	.2684	.2658	.2633	.2608	.2583	.2558	.2534
72.00	.2510	.2486	.2462	.2438	.2415	.2392	.2369	.2347	.2324	.2302	.2280	.2258
78.00	.2237	.2215	.2194	.2173	.2152	.2132	.2111	.2091	.2071	.2051	.2032	.2012
84.00	.1993	.1974	.1955	.1937	.1918	.1900	.1882	.1864	.1846	.1828	.1811	.1793
90.00	.1776	.1759	.1742	.1726	.1709	.1693	.1677	.1661	.1645	.1629	.1614	.1598
96.00	.1583	.1568	.1553	.1538	.1523	.1509	.1494	.1480	.1466	.1452	.1438	.1424
102.00	.1411	.1397	.1384	.1371	.1358	.1345	.1332	.1319	.1306	.1294	.1282	.1269
108.00	.1257	.1245	.1233	.1222	.1210	.1198	.1187	.1176	.1164	.1153	.1142	.1131
114.00	.1120	.1110	.1099	.1089	.1078	.1068	.1058	.1048	.1038	.1028	.1018	.1008
120.00	.0998	.0989	.0980	.0970	.0961	.0952	.0943	.0934	.0925	.0916	.0907	.0898
126.00	.0890	.0881	.0873	.0865	.0856	.0848	.0840	.0832	.0824	.0816	.0808	.0801
132.00	.0793	.0785	.0778	.0771	.0763	.0756	.0749	.0741	.0734	.0727	.0720	.0714

PB - 212

HALF-LIFE 10.64 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	MINUTES 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9946	.9892	.9838	.9785	.9732	.9680	.9627	.9575	.9523	.9472	.9420
1.00	.9369	.9319	.9268	.9218	.9168	.9118	.9069	.9020	.8971	.8923	.8874	.8826
2.00	.8778	.8731	.8684	.8637	.8590	.8543	.8497	.8451	.8405	.8360	.8315	.8270
3.00	.8225	.8180	.8136	.8092	.8048	.8005	.7961	.7918	.7875	.7833	.7790	.7748
4.00	.7706	.7664	.7623	.7582	.7540	.7500	.7459	.7419	.7379	.7339	.7299	.7259
5.00	.7220	.7181	.7142	.7103	.7065	.7027	.6989	.6951	.6913	.6876	.6839	.6801
6.00	.6765	.6728	.6692	.6655	.6619	.6584	.6548	.6512	.6477	.6442	.6407	.6373
7.00	.6338	.6304	.6270	.6236	.6202	.6168	.6135	.6102	.6069	.6036	.6003	.5971
8.00	.5938	.5906	.5874	.5842	.5811	.5779	.5748	.5717	.5686	.5655	.5625	.5594
9.00	.5564	.5534	.5504	.5474	.5444	.5415	.5385	.5356	.5327	.5298	.5270	.5241
10.00	.5213	.5185	.5157	.5129	.5101	.5073	.5046	.5018	.4991	.4964	.4937	.4911
11.00	.4884	.4858	.4831	.4805	.4779	.4753	.4728	.4702	.4677	.4651	.4626	.4601
12.00	.4576	.4551	.4527	.4502	.4478	.4454	.4429	.4405	.4382	.4358	.4334	.4311
13.00	.4287	.4264	.4241	.4218	.4195	.4173	.4150	.4128	.4105	.4083	.4061	.4039
14.00	.4017	.3995	.3974	.3952	.3931	.3909	.3888	.3867	.3846	.3826	.3805	.3784
15.00	.3764	.3743	.3723	.3703	.3683	.3663	.3643	.3623	.3604	.3584	.3565	.3546
16.00	.3526	.3507	.3488	.3469	.3451	.3432	.3413	.3395	.3376	.3358	.3340	.3322
17.00	.3304	.3286	.3268	.3251	.3233	.3215	.3198	.3181	.3164	.3146	.3129	.3112
18.00	.3096	.3079	.3062	.3046	.3029	.3013	.2996	.2980	.2964	.2948	.2932	.2916
19.00	.2900	.2885	.2869	.2853	.2838	.2823	.2807	.2792	.2777	.2762	.2747	.2732
20.00	.2717	.2703	.2688	.2674	.2659	.2645	.2630	.2616	.2602	.2588	.2574	.2560
21.00	.2546	.2532	.2519	.2505	.2491	.2478	.2464	.2451	.2438	.2425	.2411	.2398
22.00	.2385	.2373	.2360	.2347	.2334	.2322	.2309	.2296	.2284	.2272	.2259	.2247
23.00	.2235	.2223	.2211	.2199	.2187	.2175	.2163	.2152	.2140	.2128	.2117	.2105
24.00	.2094	.2083	.2071	.2060	.2049	.2038	.2027	.2016	.2005	.1994	.1983	.1973
25.00	.1962	.1951	.1941	.1930	.1920	.1909	.1899	.1889	.1879	.1868	.1858	.1848
26.00	.1838	.1828	.1818	.1809	.1799	.1789	.1779	.1770	.1760	.1751	.1741	.1732
27.00	.1722	.1713	.1704	.1694	.1685	.1676	.1667	.1658	.1649	.1640	.1631	.1622
28.00	.1614	.1605	.1596	.1588	.1579	.1570	.1562	.1554	.1545	.1537	.1528	.1520
29.00	.1512	.1504	.1496	.1487	.1479	.1471	.1463	.1456	.1448	.1440	.1432	.1424
30.00	.1417	.1409	.1401	.1394	.1386	.1379	.1371	.1364	.1356	.1349	.1342	.1334
31.00	.1327	.1320	.1313	.1306	.1299	.1292	.1285	.1278	.1271	.1264	.1257	.1250
32.00	.1244	.1237	.1230	.1223	.1217	.1210	.1204	.1197	.1191	.1184	.1178	.1171
33.00	.1165	.1159	.1152	.1146	.1140	.1134	.1128	.1122	.1116	.1110	.1104	.1098
34.00	.1092	.1086	.1080	.1074	.1068	.1062	.1057	.1051	.1045	.1040	.1034	.1028
35.00	.1023	.1017	.1012	.1006	.1001	.0995	.0990	.0985	.0979	.0974	.0969	.0963
36.00	.0958	.0953	.0948	.0943	.0938	.0933	.0928	.0923	.0918	.0913	.0908	.0903
37.00	.0898	.0893	.0888	.0883	.0879	.0874	.0869	.0864	.0860	.0855	.0850	.0846
38.00	.0841	.0837	.0832	.0828	.0823	.0819	.0814	.0810	.0805	.0801	.0797	.0792

PB - 214

HALF-LIFE 26.80 MINUTES CALCULATION INTERVAL 30.0 SECONDS

MINUTES	SECONDS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9872	.9745	.9619	.9496	.9374	.9253	.9135	.9017	.8901	.8787	.8674
6.00	.8563	.8453	.8344	.8237	.8131	.8026	.7923	.7822	.7721	.7622	.7524	.7427
12.00	.7332	.7238	.7145	.7053	.6962	.6873	.6784	.6697	.6611	.6526	.6442	.6360
18.00	.6278	.6197	.6118	.6039	.5961	.5885	.5809	.5735	.5661	.5588	.5516	.5445
24.00	.5376	.5306	.5238	.5171	.5105	.5039	.4974	.4910	.4847	.4785	.4723	.4663
30.00	.4603	.4544	.4485	.4428	.4371	.4315	.4259	.4204	.4150	.4097	.4044	.3993
36.00	.3941	.3891	.3841	.3791	.3743	.3694	.3647	.3600	.3554	.3508	.3463	.3419
42.00	.3375	.3331	.3289	.3246	.3205	.3163	.3123	.3083	.3043	.3004	.2965	.2927
48.00	.2890	.2852	.2816	.2780	.2744	.2709	.2674	.2640	.2606	.2572	.2539	.2506
54.00	.2474	.2442	.2411	.2380	.2350	.2319	.2290	.2260	.2231	.2202	.2174	.2146

PB - 214

HALF-LIFE 26.80 MINUTES CALCULATION INTERVAL 30.0 SECONDS

	SECONDS											
MINUTES	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
60.00	.2119	.2091	.2065	.2038	.2012	.1986	.1960	.1935	.1910	.1886	.1862	.1838
66.00	.1814	.1791	.1768	.1745	.1723	.1700	.1679	.1657	.1636	.1615	.1594	.1574
72.00	.1553	.1533	.1514	.1494	.1475	.1456	.1437	.1419	.1401	.1383	.1365	.1347
78.00	.1330	.1313	.1296	.1279	.1263	.1247	.1231	.1215	.1199	.1184	.1169	.1154
84.00	.1139	.1124	.1110	.1096	.1081	.1068	.1054	.1040	.1027	.1014	.1001	.0988
90.00	.0975	.0963	.0950	.0938	.0926	.0914	.0902	.0891	.0879	.0868	.0857	.0846
96.00	.0835	.0824	.0814	.0803	.0793	.0783	.0773	.0763	.0753	.0743	.0734	.0724

BI - 210

HALF-LIFE 5.01 DAYS CALCULATION INTERVAL 1.0 HOURS

	HOURS											
DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9943	.9885	.9829	.9772	.9716	.9660	.9605	.9549	.9494	.9440	.9386
.50	.9332	.9278	.9225	.9172	.9119	.9066	.9014	.8963	.8911	.8860	.8809	.8758
1.00	.8708	.8658	.8608	.8559	.8509	.8461	.8412	.8364	.8315	.8268	.8220	.8173
1.50	.8126	.8079	.8033	.7987	.7941	.7895	.7850	.7805	.7760	.7715	.7671	.7627
2.00	.7583	.7539	.7496	.7453	.7410	.7367	.7325	.7283	.7241	.7199	.7158	.7117
2.50	.7076	.7035	.6995	.6955	.6915	.6875	.6835	.6796	.6757	.6718	.6680	.6641
3.00	.6603	.6565	.6527	.6490	.6453	.6415	.6379	.6342	.6305	.6269	.6233	.6197
3.50	.6162	.6126	.6091	.6056	.6021	.5987	.5952	.5918	.5884	.5850	.5817	.5783
4.00	.5750	.5717	.5684	.5651	.5619	.5586	.5554	.5522	.5491	.5459	.5428	.5397
4.50	.5366	.5335	.5304	.5274	.5243	.5213	.5183	.5153	.5124	.5094	.5065	.5036
5.00	.5007	.4978	.4950	.4921	.4893	.4865	.4837	.4809	.4781	.4754	.4726	.4699
5.50	.4672	.4645	.4619	.4592	.4566	.4540	.4513	.4487	.4462	.4436	.4411	.4385
6.00	.4360	.4335	.4310	.4285	.4261	.4236	.4212	.4188	.4163	.4140	.4116	.4092
6.50	.4069	.4045	.4022	.3999	.3976	.3953	.3930	.3908	.3885	.3863	.3841	.3819
7.00	.3797	.3775	.3753	.3732	.3710	.3689	.3668	.3646	.3626	.3605	.3584	.3563
7.50	.3543	.3523	.3502	.3482	.3462	.3442	.3422	.3403	.3383	.3364	.3344	.3325
8.00	.3306	.3287	.3268	.3249	.3231	.3212	.3194	.3175	.3157	.3139	.3121	.3103
8.50	.3085	.3067	.3050	.3032	.3015	.2997	.2980	.2963	.2946	.2929	.2912	.2896
9.00	.2879	.2862	.2846	.2830	.2813	.2797	.2781	.2765	.2749	.2733	.2718	.2702
9.50	.2686	.2671	.2656	.2640	.2625	.2610	.2595	.2580	.2565	.2551	.2536	.2521
10.00	.2507	.2493	.2478	.2464	.2450	.2436	.2422	.2408	.2394	.2380	.2366	.2353
10.50	.2339	.2326	.2313	.2299	.2286	.2273	.2260	.2247	.2234	.2221	.2208	.2196
11.00	.2183	.2170	.2158	.2146	.2133	.2121	.2109	.2097	.2085	.2073	.2061	.2049
11.50	.2037	.2025	.2014	.2002	.1991	.1979	.1968	.1957	.1945	.1934	.1923	.1912
12.00	.1901	.1890	.1879	.1868	.1858	.1847	.1836	.1826	.1815	.1805	.1794	.1784
12.50	.1774	.1764	.1754	.1743	.1733	.1723	.1714	.1704	.1694	.1684	.1675	.1665
13.00	.1655	.1646	.1636	.1627	.1618	.1608	.1599	.1590	.1581	.1572	.1563	.1554
13.50	.1545	.1536	.1527	.1518	.1509	.1501	.1492	.1484	.1475	.1467	.1458	.1450
14.00	.1441	.1433	.1425	.1417	.1409	.1400	.1392	.1384	.1376	.1369	.1361	.1353
14.50	.1345	.1337	.1330	.1322	.1314	.1307	.1299	.1292	.1284	.1277	.1270	.1262
15.00	.1255	.1248	.1241	.1234	.1227	.1220	.1213	.1206	.1199	.1192	.1185	.1178
15.50	.1171	.1165	.1158	.1151	.1145	.1138	.1131	.1125	.1119	.1112	.1106	.1099
16.00	.1093	.1087	.1080	.1074	.1068	.1062	.1056	.1050	.1044	.1038	.1032	.1026
16.50	.1020	.1014	.1008	.1002	.0997	.0991	.0985	.0980	.0974	.0968	.0963	.0957
17.00	.0952	.0946	.0941	.0935	.0930	.0925	.0919	.0914	.0909	.0904	.0898	.0893
17.50	.0888	.0883	.0878	.0873	.0868	.0863	.0858	.0853	.0848	.0843	.0838	.0834
18.00	.0829	.0824	.0819	.0815	.0810	.0805	.0801	.0796	.0791	.0787	.0782	.0778

BI - 211

HALF-LIFE 2.16 MINUTES CALCULATION INTERVAL 1.0 SECONDS

	SECONDS											
MINUTES	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9947	.9894	.9841	.9788	.9736	.9684	.9633	.9581	.9530	.9479	.9429
.20	.9378	.9328	.9279	.9229	.9180	.9131	.9082	.9034	.8986	.8938	.8890	.8843
.40	.8795	.8748	.8702	.8655	.8609	.8563	.8518	.8472	.8427	.8382	.8337	.8293
.60	.8249	.8205	.8161	.8117	.8074	.8031	.7988	.7945	.7903	.7861	.7819	.7777
.80	.7736	.7695	.7654	.7613	.7572	.7532	.7492	.7452	.7412	.7372	.7333	.7294
1.00	.7255	.7216	.7178	.7139	.7101	.7064	.7026	.6988	.6951	.6914	.6877	.6840
1.20	.6804	.6768	.6732	.6696	.6660	.6624	.6589	.6554	.6519	.6484	.6450	.6415
1.40	.6381	.6347	.6313	.6279	.6246	.6213	.6179	.6147	.6114	.6081	.6049	.6016
1.60	.5984	.5952	.5921	.5889	.5858	.5826	.5795	.5764	.5734	.5703	.5673	.5642
1.80	.5612	.5582	.5553	.5523	.5494	.5464	.5435	.5406	.5377	.5349	.5320	.5292
2.00	.5263	.5235	.5207	.5180	.5152	.5125	.5097	.5070	.5043	.5016	.4989	.4963
2.20	.4936	.4910	.4884	.4858	.4832	.4806	.4780	.4755	.4729	.4704	.4679	.4654
2.40	.4629	.4605	.4580	.4556	.4531	.4507	.4483	.4459	.4435	.4412	.4388	.4365
2.60	.4342	.4318	.4295	.4272	.4250	.4227	.4204	.4182	.4160	.4138	.4115	.4094
2.80	.4072	.4050	.4028	.4007	.3986	.3964	.3943	.3922	.3901	.3880	.3860	.3839
3.00	.3819	.3798	.3778	.3758	.3738	.3718	.3698	.3678	.3659	.3639	.3620	.3600
3.20	.3581	.3562	.3543	.3524	.3505	.3487	.3468	.3450	.3431	.3413	.3395	.3377
3.40	.3359	.3341	.3323	.3305	.3287	.3270	.3253	.3235	.3218	.3201	.3184	.3167
3.60	.3150	.3133	.3116	.3100	.3083	.3067	.3050	.3034	.3018	.3002	.2986	.2970
3.80	.2954	.2938	.2923	.2907	.2891	.2876	.2861	.2845	.2830	.2815	.2800	.2785
4.00	.2770	.2756	.2741	.2726	.2712	.2697	.2683	.2669	.2654	.2640	.2626	.2612
4.20	.2598	.2584	.2571	.2557	.2543	.2530	.2516	.2503	.2489	.2476	.2463	.2450
4.40	.2437	.2424	.2411	.2398	.2385	.2372	.2360	.2347	.2335	.2322	.2310	.2297
4.60	.2285	.2273	.2261	.2249	.2237	.2225	.2213	.2201	.2189	.2178	.2166	.2155
4.80	.2143	.2132	.2120	.2109	.2098	.2087	.2075	.2064	.2053	.2042	.2032	.2021
5.00	.2010	.1999	.1989	.1978	.1967	.1957	.1946	.1936	.1926	.1915	.1905	.1895
5.20	.1885	.1875	.1865	.1855	.1845	.1835	.1825	.1816	.1806	.1796	.1787	.1777
5.40	.1768	.1758	.1749	.1740	.1730	.1721	.1712	.1703	.1694	.1685	.1676	.1667
5.60	.1658	.1649	.1640	.1631	.1623	.1614	.1606	.1597	.1588	.1580	.1572	.1563
5.80	.1555	.1547	.1538	.1530	.1522	.1514	.1506	.1498	.1490	.1482	.1474	.1466
6.00	.1458	.1450	.1443	.1435	.1427	.1420	.1412	.1405	.1397	.1390	.1382	.1375
6.20	.1368	.1360	.1353	.1346	.1339	.1331	.1324	.1317	.1310	.1303	.1296	.1289
6.40	.1283	.1276	.1269	.1262	.1255	.1249	.1242	.1235	.1229	.1222	.1216	.1209
6.60	.1203	.1196	.1190	.1184	.1177	.1171	.1165	.1159	.1152	.1146	.1140	.1134
6.80	.1128	.1122	.1116	.1110	.1104	.1098	.1092	.1087	.1081	.1075	.1069	.1064
7.00	.1058	.1052	.1047	.1041	.1035	.1030	.1024	.1019	.1014	.1008	.1003	.0997
7.20	.0992	.0987	.0982	.0976	.0971	.0966	.0961	.0956	.0951	.0946	.0940	.0935
7.40	.0930	.0925	.0921	.0916	.0911	.0906	.0901	.0896	.0891	.0887	.0882	.0877
7.60	.0873	.0868	.0863	.0859	.0854	.0850	.0845	.0841	.0836	.0832	.0827	.0823
7.80	.0818	.0814	.0810	.0805	.0801	.0797	.0793	.0788	.0784	.0780	.0776	.0772

BI - 212

HALF-LIFE 1.10 HOURS CALCULATION INTERVAL 1.0 MINUTES

	MINUTES											
HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9896	.9792	.9690	.9589	.9488	.9389	.9291	.9194	.9098	.9003	.8909
.20	.8816	.8724	.8633	.8542	.8453	.8365	.8278	.8191	.8105	.8021	.7937	.7854
.40	.7772	.7691	.7610	.7531	.7452	.7374	.7297	.7221	.7146	.7071	.6997	.6924
.60	.6852	.6780	.6709	.6639	.6570	.6501	.6433	.6366	.6300	.6234	.6169	.6104
.80	.6040	.5977	.5915	.5853	.5792	.5731	.5672	.5612	.5554	.5496	.5438	.5381
1.00	.5325	.5270	.5215	.5160	.5106	.5053	.5000	.4948	.4896	.4845	.4794	.4744
1.20	.4695	.4646	.4597	.4549	.4502	.4454	.4408	.4362	.4316	.4271	.4227	.4182
1.40	.4139	.4096	.4053	.4010	.3969	.3927	.3886	.3845	.3805	.3765	.3726	.3687
1.60	.3649	.3611	.3573	.3536	.3499	.3462	.3426	.3390	.3355	.3320	.3285	.3251
1.80	.3217	.3183	.3150	.3117	.3084	.3052	.3020	.2989	.2957	.2927	.2896	.2866

BI - 212

HALF-LIFE 1.10 HOURS   CALCULATION INTERVAL 1.0 MINUTES

HOURS	MINUTES 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
2.00	.2836	.2806	.2777	.2748	.2719	.2691	.2663	.2635	.2607	.2580	.2553	.2526
2.20	.2500	.2474	.2448	.2422	.2397	.2372	.2347	.2323	.2299	.2275	.2251	.2227
2.40	.2204	.2181	.2158	.2136	.2113	.2091	.2069	.2048	.2026	.2005	.1984	.1964
2.60	.1943	.1923	.1903	.1883	.1863	.1844	.1824	.1805	.1786	.1768	.1749	.1731
2.80	.1713	.1695	.1677	.1660	.1642	.1625	.1608	.1592	.1575	.1558	.1542	.1526
3.00	.1510	.1494	.1479	.1463	.1448	.1433	.1418	.1403	.1388	.1374	.1360	.1345
3.20	.1331	.1317	.1304	.1290	.1277	.1263	.1250	.1237	.1224	.1211	.1199	.1186
3.40	.1174	.1161	.1149	.1137	.1125	.1114	.1102	.1090	.1079	.1068	.1057	.1046
3.60	.1035	.1024	.1013	.1003	.0992	.0982	.0972	.0961	.0951	.0941	.0932	.0922
3.80	.0912	.0903	.0893	.0884	.0875	.0866	.0856	.0848	.0839	.0830	.0821	.0813
4.00	.0804	.0796	.0787	.0779	.0771	.0763	.0755	.0747	.0739	.0732	.0724	.0716

BI - 213

HALF-LIFE 47.00 MINUTES   CALCULATION INTERVAL 30.0 SECONDS

MINUTES	SECONDS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9927	.9854	.9781	.9709	.9638	.9567	.9497	.9427	.9358	.9289	.9221
6.00	.9153	.9086	.9019	.8953	.8887	.8822	.8757	.8693	.8629	.8565	.8502	.8440
12.00	.8378	.8316	.8255	.8195	.8135	.8075	.8015	.7957	.7898	.7840	.7782	.7725
18.00	.7669	.7612	.7556	.7501	.7446	.7391	.7337	.7283	.7229	.7176	.7123	.7071
24.00	.7019	.6968	.6916	.6866	.6815	.6765	.6715	.6666	.6617	.6568	.6520	.6472
30.00	.6425	.6378	.6331	.6284	.6238	.6192	.6147	.6101	.6057	.6012	.5968	.5924
36.00	.5881	.5837	.5795	.5752	.5710	.5668	.5626	.5585	.5544	.5503	.5463	.5422
42.00	.5383	.5343	.5304	.5265	.5226	.5188	.5150	.5112	.5074	.5037	.5000	.4963
48.00	.4927	.4891	.4855	.4819	.4784	.4748	.4714	.4679	.4645	.4610	.4577	.4543
54.00	.4510	.4476	.4444	.4411	.4379	.4346	.4314	.4283	.4251	.4220	.4189	.4158
60.00	.4128	.4097	.4067	.4037	.4008	.3978	.3949	.3920	.3891	.3863	.3834	.3806
66.00	.3778	.3750	.3723	.3695	.3668	.3641	.3615	.3588	.3562	.3536	.3510	.3484
72.00	.3458	.3433	.3408	.3383	.3358	.3333	.3309	.3284	.3260	.3236	.3212	.3189
78.00	.3165	.3142	.3119	.3096	.3073	.3051	.3028	.3006	.2984	.2962	.2940	.2919
84.00	.2897	.2876	.2855	.2834	.2813	.2792	.2772	.2752	.2731	.2711	.2691	.2672
90.00	.2652	.2632	.2613	.2594	.2575	.2556	.2537	.2519	.2500	.2482	.2463	.2445
96.00	.2427	.2410	.2392	.2374	.2357	.2339	.2322	.2305	.2288	.2271	.2255	.2238
102.00	.2222	.2205	.2189	.2173	.2157	.2141	.2126	.2110	.2095	.2079	.2064	.2049
108.00	.2034	.2019	.2004	.1989	.1975	.1960	.1946	.1931	.1917	.1903	.1889	.1875
114.00	.1861	.1848	.1834	.1821	.1807	.1794	.1781	.1768	.1755	.1742	.1729	.1716
120.00	.1704	.1691	.1679	.1667	.1654	.1642	.1630	.1618	.1606	.1594	.1583	.1571
126.00	.1559	.1548	.1537	.1525	.1514	.1503	.1492	.1481	.1470	.1459	.1449	.1438
132.00	.1427	.1417	.1407	.1396	.1386	.1376	.1366	.1356	.1346	.1336	.1326	.1316
138.00	.1307	.1297	.1287	.1278	.1269	.1259	.1250	.1241	.1232	.1223	.1214	.1205
144.00	.1196	.1187	.1178	.1170	.1161	.1153	.1144	.1136	.1127	.1119	.1111	.1103
150.00	.1095	.1087	.1079	.1071	.1063	.1055	.1047	.1040	.1032	.1024	.101[illegible]	.1009
156.00	.1002	.0995	.0987	.0980	.0973	.0966	.0959	.0952	.0945	.0938	.0931	.0924
162.00	.0917	.0910	.0904	.0897	.0890	.0884	.0877	.0871	.0865	.0858	.0852	.0846
168.00	.0839	.0833	.0827	.0821	.0815	.0809	.0803	.0797	.0791	.0786	.0780	.0774

BI - 214

HALF-LIFE 19.70 MINUTES CALCULATION INTERVAL 5.0 SECONDS

	SECONDS											
MINUTES	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9971	.9942	.9912	.9883	.9854	.9826	.9797	.9768	.9740	.9711	.9683
1.00	.9654	.9626	.9598	.9570	.9542	.9514	.9486	.9458	.9430	.9403	.9375	.9348
2.00	.9320	.9293	.9266	.9239	.9212	.9185	.9158	.9131	.9104	.9078	.9051	.9025
3.00	.8998	.8972	.8946	.8919	.8893	.8867	.8841	.8815	.8790	.8764	.8738	.8713
4.00	.8687	.8662	.8636	.8611	.8586	.8561	.8536	.8511	.8486	.8461	.8436	.8411
5.00	.8387	.8362	.8338	.8313	.8289	.8265	.8241	.8216	.8192	.8168	.8144	.8121
6.00	.8097	.8073	.8050	.8026	.8002	.7979	.7956	.7932	.7909	.7886	.7863	.7840
7.00	.7817	.7794	.7771	.7748	.7726	.7703	.7681	.7658	.7636	.7613	.7591	.7569
8.00	.7547	.7525	.7503	.7481	.7459	.7437	.7415	.7393	.7372	.7350	.7329	.7307
9.00	.7286	.7264	.7243	.7222	.7201	.7180	.7159	.7138	.7117	.7096	.7075	.7055
10.00	.7034	.7013	.6993	.6972	.6952	.6931	.6911	.6891	.6871	.6851	.6831	.6811
11.00	.6791	.6771	.6751	.6731	.6711	.6692	.6672	.6653	.6633	.6614	.6594	.6575
12.00	.6556	.6537	.6518	.6498	.6479	.6460	.6442	.6423	.6404	.6385	.6366	.6348
13.00	.6329	.6311	.6292	.6274	.6255	.6237	.6219	.6201	.6182	.6164	.6146	.6128
14.00	.6110	.6093	.6075	.6057	.6039	.6021	.6004	.5986	.5969	.5951	.5934	.5916
15.00	.5899	.5882	.5865	.5847	.5830	.5813	.5796	.5779	.5762	.5746	.5729	.5712
16.00	.5695	.5679	.5662	.5645	.5629	.5612	.5596	.5579	.5563	.5547	.5531	.5514
17.00	.5498	.5482	.5466	.5450	.5434	.5418	.5402	.5387	.5371	.5355	.5339	.5324
18.00	.5308	.5293	.5277	.5262	.5246	.5231	.5216	.5200	.5185	.5170	.5155	.5140
19.00	.5125	.5110	.5095	.5080	.5065	.5050	.5035	.5021	.5006	.4991	.4977	.4962
20.00	.4947	.4933	.4919	.4904	.4890	.4875	.4861	.4847	.4833	.4819	.4805	.4790
21.00	.4776	.4762	.4749	.4735	.4721	.4707	.4693	.4679	.4666	.4652	.4638	.4625
22.00	.4611	.4598	.4584	.4571	.4558	.4544	.4531	.4518	.4504	.4491	.4478	.4465
23.00	.4452	.4439	.4426	.4413	.4400	.4387	.4374	.4361	.4349	.4336	.4323	.4311
24.00	.4299	.4285	.4273	.4260	.4248	.4235	.4223	.4211	.4198	.4186	.4174	.4162
25.00	.4149	.4137	.4125	.4113	.4101	.4089	.4077	.4065	.4053	.4041	.4029	.4018
26.00	.4006	.3994	.3982	.3971	.3959	.3948	.3936	.3925	.3913	.3902	.3890	.3879
27.00	.3867	.3856	.3845	.3834	.3822	.3811	.3800	.3789	.3778	.3767	.3756	.3745
28.00	.3734	.3723	.3712	.3701	.3690	.3679	.3669	.3658	.3647	.3636	.3626	.3615
29.00	.3605	.3594	.3584	.3573	.3563	.3552	.3542	.3531	.3521	.3511	.3500	.3490
30.00	.3480	.3470	.3460	.3450	.3439	.3429	.3419	.3409	.3399	.3389	.3379	.3370
31.00	.3360	.3350	.3340	.3330	.3321	.3311	.3301	.3291	.3282	.3272	.3263	.3253
32.00	.3244	.3234	.3225	.3215	.3206	.3196	.3187	.3178	.3168	.3159	.3150	.3141
33.00	.3131	.3122	.3113	.3104	.3095	.3086	.3077	.3068	.3059	.3050	.3041	.3032
34.00	.3023	.3014	.3005	.2997	.2988	.2979	.2970	.2962	.2953	.2944	.2936	.2927
35.00	.2919	.2910	.2902	.2893	.2885	.2876	.2868	.2859	.2851	.2843	.2834	.2826
36.00	.2818	.2809	.2801	.2793	.2785	.2777	.2769	.2760	.2752	.2744	.2736	.2728
37.00	.2720	.2712	.2704	.2696	.2689	.2681	.2673	.2665	.2657	.2649	.2642	.2634
38.00	.2626	.2619	.2611	.2603	.2596	.2588	.2580	.2573	.2565	.2558	.2550	.2543
39.00	.2535	.2528	.2521	.2513	.2506	.2499	.2491	.2484	.2477	.2469	.2462	.2455
40.00	.2448	.2441	.2433	.2426	.2419	.2412	.2405	.2398	.2391	.2384	.2377	.2370
41.00	.2363	.2356	.2349	.2342	.2336	.2329	.2322	.2315	.2308	.2302	.2295	.2288
42.00	.2281	.2275	.2268	.2261	.2255	.2248	.2242	.2235	.2229	.2222	.2216	.2209
43.00	.2203	.2196	.2190	.2183	.2177	.2171	.2164	.2158	.2152	.2145	.2139	.2133
44.00	.2126	.2120	.2114	.2108	.2102	.2095	.2089	.2083	.2077	.2071	.2065	.2059
45.00	.2053	.2047	.2041	.2035	.2029	.2023	.2017	.2011	.2005	.1999	.1994	.1988
46.00	.1982	.1976	.1970	.1965	.1959	.1953	.1947	.1942	.1936	.1930	.1925	.1919
47.00	.1913	.1908	.1902	.1897	.1891	.1886	.1880	.1875	.1869	.1864	.1858	.1853
48.00	.1847	.1842	.1836	.1831	.1826	.1820	.1815	.1810	.1804	.1799	.1794	.1789
49.00	.1783	.1778	.1773	.1768	.1763	.1757	.1752	.1747	.1742	.1737	.1732	.1727
50.00	.1722	.1717	.1712	.1707	.1702	.1697	.1692	.1687	.1682	.1677	.1672	.1667
51.00	.1662	.1657	.1652	.1648	.1643	.1638	.1633	.1628	.1624	.1619	.1614	.1609
52.00	.1605	.1600	.1595	.1591	.1586	.1581	.1577	.1572	.1568	.1563	.1558	.1554
53.00	.1549	.1545	.1540	.1536	.1531	.1527	.1522	.1518	.1513	.1509	.1504	.1500
54.00	.1496	.1491	.1487	.1483	.1478	.1474	.1470	.1465	.1461	.1457	.1452	.1448

BI - 214

HALF-LIFE 19.70 MINUTES CALCULATION INTERVAL 5.0 SECONDS

MINUTES	SECONDS 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
55.00	.1444	.1440	.1436	.1431	.1427	.1423	.1419	.1415	.1411	.1406	.1402	.1398
56.00	.1394	.1390	.1386	.1382	.1378	.1374	.1370	.1366	.1362	.1358	.1354	.1350
57.00	.1346	.1342	.1338	.1334	.1330	.1326	.1322	.1319	.1315	.1311	.1307	.1303
58.00	.1299	.1296	.1292	.1288	.1284	.1280	.1277	.1273	.1269	.1265	.1262	.1258
59.00	.1254	.1251	.1247	.1243	.1240	.1236	.1233	.1229	.1225	.1222	.1218	.1215
60.00	.1211	.1207	.1204	.1200	.1197	.1193	.1190	.1186	.1183	.1179	.1176	.1173
61.00	.1169	.1166	.1162	.1159	.1156	.1152	.1149	.1145	.1142	.1139	.1135	.1132
62.00	.1129	.1125	.1122	.1119	.1116	.1112	.1109	.1106	.1103	.1099	.1096	.1093
63.00	.1090	.1087	.1083	.1080	.1077	.1074	.1071	.1068	.1064	.1061	.1058	.1055
64.00	.1052	.1049	.1046	.1043	.1040	.1037	.1034	.1031	.1028	.1025	.1022	.1019
65.00	.1016	.1013	.1010	.1007	.1004	.1001	.0998	.0995	.0992	.0989	.0986	.0983
66.00	.0981	.0978	.0975	.0972	.0969	.0966	.0963	.0961	.0958	.0955	.0952	.0949
67.00	.0947	.0944	.0941	.0938	.0936	.0933	.0930	.0927	.0925	.0922	.0919	.0917
68.00	.0914	.0911	.0909	.0906	.0903	.0901	.0898	.0895	.0893	.0890	.0888	.0885
69.00	.0882	.0880	.0877	.0875	.0872	.0869	.0867	.0864	.0862	.0859	.0857	.0854
70.00	.0852	.0849	.0847	.0844	.0842	.0839	.0837	.0835	.0832	.0830	.0827	.0825
71.00	.0822	.0820	.0818	.0815	.0813	.0810	.0808	.0806	.0803	.0801	.0799	.0796

PO - 210

HALF-LIFE 138.40 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
0.00	1.0000	.9950	.9900	.9851	.9802	.9753	.9704	.9655	.9607	.9559	.9512	.9464
12.00	.9417	.9370	.9323	.9276	.9230	.9184	.9138	.9092	.9047	.9002	.8957	.8912
24.00	.8867	.8823	.8779	.8735	.8692	.8648	.8605	.8562	.8519	.8477	.8434	.8392
36.00	.8350	.8308	.8267	.8226	.8185	.8144	.8103	.8063	.8022	.7982	.7942	.7903
48.00	.7863	.7824	.7785	.7746	.7707	.7669	.7630	.7592	.7554	.7517	.7479	.7442
60.00	.7404	.7368	.7331	.7294	.7258	.7221	.7185	.7149	.7114	.7078	.7043	.7008
72.00	.6973	.6938	.6903	.6869	.6834	.6800	.6766	.6732	.6699	.6665	.6632	.6599
84.00	.6566	.6533	.6500	.6468	.6436	.6404	.6372	.6340	.6308	.6277	.6245	.6214
96.00	.6183	.6152	.6121	.6091	.6060	.6030	.6000	.5970	.5940	.5910	.5881	.5852
108.00	.5822	.5793	.5764	.5735	.5707	.5678	.5650	.5622	.5594	.5566	.5538	.5510
120.00	.5483	.5455	.5428	.5401	.5374	.5347	.5320	.5294	.5267	.5241	.5215	.5189
132.00	.5163	.5137	.5111	.5086	.5060	.5035	.5010	.4985	.4960	.4935	.4911	.4886
144.00	.4862	.4837	.4813	.4789	.4765	.4741	.4718	.4694	.4671	.4647	.4624	.4601
156.00	.4578	.4555	.4533	.4510	.4487	.4465	.4443	.4420	.4398	.4376	.4354	.4333
168.00	.4311	.4290	.4268	.4247	.4226	.4204	.4183	.4163	.4142	.4121	.4101	.4080
180.00	.4060	.4039	.4019	.3999	.3979	.3959	.3939	.3920	.3900	.3881	.3861	.3842
192.00	.3823	.3804	.3785	.3766	.3747	.3728	.3710	.3691	.3673	.3654	.3636	.3618
204.00	.3600	.3582	.3564	.3546	.3528	.3511	.3493	.3476	.3458	.3441	.3424	.3407
216.00	.3390	.3373	.3356	.3339	.3323	.3306	.3290	.3273	.3257	.3240	.3224	.3208
228.00	.3192	.3176	.3160	.3145	.3129	.3113	.3098	.3082	.3067	.3051	.3036	.3021
240.00	.3006	.2991	.2976	.2961	.2946	.2932	.2917	.2902	.2888	.2873	.2859	.2845
252.00	.2831	.2816	.2802	.2788	.2774	.2761	.2747	.2733	.2719	.2706	.2692	.2679
264.00	.2666	.2652	.2639	.2626	.2613	.2600	.2587	.2574	.2561	.2548	.2535	.2523
276.00	.2510	.2497	.2485	.2473	.2460	.2448	.2436	.2424	.2411	.2399	.2387	.2375
288.00	.2364	.2352	.2340	.2328	.2317	.2305	.2294	.2282	.2271	.2259	.2248	.2237
300.00	.2226	.2215	.2204	.2193	.2182	.2171	.2160	.2149	.2138	.2128	.2117	.2106
312.00	.2096	.2085	.2075	.2065	.2054	.2044	.2034	.2024	.2014	.2004	.1994	.1984
324.00	.1974	.1964	.1954	.1944	.1935	.1925	.1915	.1906	.1896	.1887	.1877	.1868
336.00	.1859	.1849	.1840	.1831	.1822	.1813	.1804	.1795	.1786	.1777	.1768	.1759
348.00	.1750	.1741	.1733	.1724	.1715	.1707	.1698	.1690	.1681	.1673	.1665	.1656

PO - 210

HALF-LIFE 138.40 DAYS CALCULATION INTERVAL 24.0 HOURS

DAYS	HOURS 0.0	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0	240.0	264.0
360.00	.1648	.1640	.1632	.1623	.1615	.1607	.1599	.1591	.1583	.1575	.1568	.1560
372.00	.1552	.1544	.1536	.1529	.1521	.1514	.1506	.1498	.1491	.1484	.1476	.1469
384.00	.1461	.1454	.1447	.1440	.1432	.1425	.1418	.1411	.1404	.1397	.1390	.1383
396.00	.1376	.1369	.1362	.1356	.1349	.1342	.1335	.1329	.1322	.1316	.1309	.1302
408.00	.1296	.1289	.1283	.1277	.1270	.1264	.1258	.1251	.1245	.1239	.1233	.1226
420.00	.1220	.1214	.1208	.1202	.1196	.1190	.1184	.1178	.1172	.1167	.1161	.1155
432.00	.1149	.1143	.1138	.1132	.1126	.1121	.1115	.1110	.1104	.1098	.1093	.1088
444.00	.1082	.1077	.1071	.1066	.1061	.1055	.1050	.1045	.1040	.1034	.1029	.1024
456.00	.1019	.1014	.1009	.1004	.0999	.0994	.0989	.0984	.0979	.0974	.0969	.0964
468.00	.0960	.0955	.0950	.0945	.0941	.0936	.0931	.0926	.0922	.0917	.0913	.0908
480.00	.0904	.0899	.0895	.0890	.0886	.0881	.0877	.0872	.0868	.0864	.0859	.0855
492.00	.0851	.0847	.0842	.0838	.0834	.0830	.0826	.0822	.0817	.0813	.0809	.0805
504.00	.0801	.0797	.0793	.0789	.0785	.0781	.0778	.0774	.0770	.0766	.0762	.0758

PO - 218

HALF-LIFE 3.05 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9962	.9925	.9887	.9850	.9812	.9775	.9738	.9702	.9665	.9628	.9592
.20	.9556	.9520	.9484	.9448	.9412	.9376	.9341	.9306	.9270	.9235	.9200	.9166
.40	.9131	.9097	.9062	.9028	.8994	.8960	.8926	.8892	.8859	.8825	.8792	.8758
.60	.8725	.8692	.8659	.8627	.8594	.8562	.8529	.8497	.8465	.8433	.8401	.8369
.80	.8338	.8306	.8275	.8243	.8212	.8181	.8150	.8119	.8089	.8058	.8028	.7997
1.00	.7967	.7937	.7907	.7877	.7847	.7818	.7788	.7759	.7729	.7700	.7671	.7642
1.20	.7613	.7584	.7556	.7527	.7499	.7470	.7442	.7414	.7386	.7358	.7330	.7302
1.40	.7275	.7247	.7220	.7193	.7165	.7138	.7111	.7084	.7058	.7031	.7004	.6978
1.60	.6952	.6925	.6899	.6873	.6847	.6821	.6795	.6770	.6744	.6719	.6693	.6668
1.80	.6643	.6618	.6593	.6568	.6543	.6518	.6493	.6469	.6444	.6420	.6396	.6372
2.00	.6348	.6324	.6300	.6276	.6252	.6228	.6205	.6181	.6158	.6135	.6112	.6088
2.20	.6065	.6043	.6020	.5997	.5974	.5952	.5929	.5907	.5884	.5862	.5840	.5818
2.40	.5796	.5774	.5752	.5730	.5709	.5687	.5666	.5644	.5623	.5602	.5581	.5559
2.60	.5538	.5517	.5497	.5476	.5455	.5434	.5414	.5393	.5373	.5353	.5333	.5312
2.80	.5292	.5272	.5252	.5233	.5213	.5193	.5173	.5154	.5134	.5115	.5096	.5076
3.00	.5057	.5038	.5019	.5000	.4981	.4962	.4944	.4925	.4906	.4888	.4869	.4851
3.20	.4832	.4814	.4796	.4778	.4760	.4742	.4724	.4706	.4688	.4670	.4653	.4635
3.40	.4618	.4600	.4583	.4566	.4548	.4531	.4514	.4497	.4480	.4463	.4446	.4429
3.60	.4413	.4396	.4379	.4363	.4346	.4330	.4313	.4297	.4281	.4265	.4249	.4232
3.80	.4216	.4201	.4185	.4169	.4153	.4137	.4122	.4106	.4091	.4075	.4060	.4044
4.00	.4029	.4014	.3999	.3984	.3969	.3953	.3939	.3924	.3909	.3894	.3879	.3865
4.20	.3850	.3835	.3821	.3807	.3792	.3778	.3764	.3749	.3735	.3721	.3707	.3693
4.40	.3679	.3665	.3651	.3637	.3624	.3610	.3596	.3583	.3569	.3556	.3542	.3529
4.60	.3516	.3502	.3489	.3476	.3463	.3450	.3437	.3424	.3411	.3398	.3385	.3372
4.80	.3359	.3347	.3334	.3321	.3309	.3296	.3284	.3271	.3259	.3247	.3234	.3222
5.00	.3210	.3198	.3186	.3174	.3162	.3150	.3138	.3126	.3114	.3102	.3091	.3079
5.20	.3067	.3056	.3044	.3033	.3021	.3010	.2998	.2987	.2976	.2965	.2953	.2942
5.40	.2931	.2920	.2909	.2898	.2887	.2876	.2865	.2854	.2844	.2833	.2822	.2811
5.60	.2801	.2790	.2780	.2769	.2759	.2748	.2738	.2728	.2717	.2707	.2697	.2687
5.80	.2676	.2666	.2656	.2646	.2636	.2626	.2616	.2606	.2597	.2587	.2577	.2567
6.00	.2557	.2548	.2538	.2529	.2519	.2509	.2500	.2491	.2481	.2472	.2462	.2453
6.20	.2444	.2435	.2425	.2416	.2407	.2398	.2389	.2380	.2371	.2362	.2353	.2344
6.40	.2335	.2326	.2318	.2309	.2300	.2291	.2283	.2274	.2266	.2257	.2248	.2240
6.60	.2231	.2223	.2215	.2206	.2198	.2190	.2181	.2173	.2165	.2157	.2149	.2140
6.80	.2132	.2124	.2116	.2108	.2100	.2092	.2084	.2077	.2069	.2061	.2053	.2045

PO - 218

HALF-LIFE 3.05 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
7.00	.2038	.2030	.2022	.2015	.2007	.1999	.1992	.1984	.1977	.1969	.1962	.1954
7.20	.1947	.1940	.1932	.1925	.1918	.1910	.1903	.1896	.1889	.1882	.1875	.1868
7.40	.1861	.1853	.1846	.1839	.1833	.1826	.1819	.1812	.1805	.1798	.1791	.1785
7.60	.1778	.1771	.1764	.1758	.1751	.1744	.1738	.1731	.1725	.1718	.1712	.1705
7.80	.1699	.1692	.1686	.1680	.1673	.1667	.1661	.1654	.1648	.1642	.1636	.1630
8.00	.1623	.1617	.1611	.1605	.1599	.1593	.1587	.1581	.1575	.1569	.1563	.1557
8.20	.1551	.1545	.1540	.1534	.1528	.1522	.1516	.1511	.1505	.1499	.1494	.1488
8.40	.1482	.1477	.1471	.1466	.1460	.1454	.1449	.1444	.1438	.1433	.1427	.1422
8.60	.1416	.1411	.1406	.1400	.1395	.1390	.1385	.1379	.1374	.1369	.1364	.1359
8.80	.1353	.1348	.1343	.1338	.1333	.1328	.1323	.1318	.1313	.1308	.1303	.1298
9.00	.1293	.1288	.1284	.1279	.1274	.1269	.1264	.1260	.1255	.1250	.1245	.1241
9.20	.1236	.1231	.1227	.1222	.1217	.1213	.1208	.1204	.1199	.1194	.1190	.1185
9.40	.1181	.1176	.1172	.1168	.1163	.1159	.1154	.1150	.1146	.1141	.1137	.1133
9.60	.1128	.1124	.1120	.1116	.1112	.1107	.1103	.1099	.1095	.1091	.1087	.1082
9.80	.1078	.1074	.1070	.1066	.1062	.1058	.1054	.1050	.1046	.1042	.1038	.1034
10.00	.1030	.1027	.1023	.1019	.1015	.1011	.1007	.1003	.1000	.0996	.0992	.0988
10.20	.0985	.0981	.0977	.0974	.0970	.0966	.0963	.0959	.0955	.0952	.0948	.0944
10.40	.0941	.0937	.0934	.0930	.0927	.0923	.0920	.0916	.0913	.0909	.0906	.0902
10.60	.0899	.0896	.0892	.0889	.0886	.0882	.0879	.0876	.0872	.0869	.0866	.0862
10.80	.0859	.0856	.0853	.0849	.0846	.0843	.0840	.0837	.0833	.0830	.0827	.0824
11.00	.0821	.0818	.0815	.0812	.0809	.0806	.0803	.0799	.0796	.0793	.0790	.0787

RN - 220

HALF-LIFE 55.30 SECONDS CALCULATION INTERVAL 1.0 SECONDS

SECONDS	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9875	.9752	.9631	.9511	.9393	.9276	.9160	.9046	.8933
10.0	.8822	.8712	.8604	.8496	.8391	.8286	.8183	.8081	.7980	.7881
20.0	.7783	.7686	.7590	.7495	.7402	.7310	.7219	.7129	.7040	.6952
30.0	.6866	.6780	.6696	.6612	.6530	.6449	.6368	.6289	.6211	.6133
40.0	.6057	.5982	.5907	.5833	.5761	.5689	.5618	.5548	.5479	.5411
50.0	.5343	.5277	.5211	.5146	.5082	.5019	.4956	.4895	.4834	.4773
60.0	.4714	.4655	.4597	.4540	.4483	.4428	.4372	.4318	.4264	.4211
70.0	.4159	.4107	.4056	.4005	.3955	.3906	.3857	.3809	.3762	.3715
80.0	.3669	.3623	.3578	.3533	.3489	.3446	.3403	.3361	.3319	.3277
90.0	.3237	.3196	.3156	.3117	.3078	.3040	.3002	.2965	.2928	.2891
100.0	.2855	.2820	.2785	.2750	.2716	.2682	.2648	.2615	.2583	.2551
110.0	.2519	.2487	.2457	.2426	.2396	.2366	.2336	.2307	.2279	.2250
120.0	.2222	.2194	.2167	.2140	.2113	.2087	.2061	.2035	.2010	.1985
130.0	.1960	.1936	.1912	.1888	.1864	.1841	.1818	.1796	.1773	.1751
140.0	.1729	.1708	.1687	.1666	.1645	.1624	.1604	.1584	.1564	.1545
150.0	.1526	.1507	.1488	.1469	.1451	.1433	.1415	.1398	.1380	.1363
160.0	.1346	.1329	.1313	.1296	.1280	.1264	.1248	.1233	.1218	.1202
170.0	.1187	.1173	.1158	.1144	.1129	.1115	.1101	.1088	.1074	.1061
180.0	.1048	.1034	.1022	.1009	.0996	.0984	.0972	.0960	.0948	.0936
190.0	.0924	.0913	.0901	.0890	.0879	.0868	.0857	.0846	.0836	.0826
200.0	.0815	.0805	.0795	.0785	.0775	.0766	.0756	.0747	.0737	.0728

RN - 222

HALF-LIFE 3.82 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
0.00	1.0000	.9962	.9925	.9887	.9850	.9813	.9776	.9739	.9702	.9666	.9629	.9593
.25	.9557	.9521	.9485	.9449	.9414	.9378	.9343	.9307	.9272	.9237	.9203	.9168
.50	.9133	.9099	.9065	.9030	.8996	.8962	.8929	.8895	.8861	.8828	.8795	.8762
.75	.8729	.8696	.8663	.8630	.8598	.8565	.8533	.8501	.8469	.8437	.8405	.8373
1.00	.8342	.8310	.8279	.8248	.8217	.8186	.8155	.8124	.8093	.8063	.8033	.8002
1.25	.7972	.7942	.7912	.7882	.7853	.7823	.7793	.7764	.7735	.7706	.7677	.7648
1.50	.7619	.7590	.7561	.7533	.7505	.7476	.7448	.7420	.7392	.7364	.7336	.7309
1.75	.7281	.7254	.7226	.7199	.7172	.7145	.7118	.7091	.7064	.7038	.7011	.6985
2.00	.6958	.6932	.6906	.6880	.6854	.6828	.6803	.6777	.6751	.6726	.6701	.6675
2.25	.6650	.6625	.6600	.6575	.6550	.6526	.6501	.6477	.6452	.6428	.6404	.6379
2.50	.6355	.6331	.6308	.6284	.6260	.6236	.6213	.6190	.6166	.6143	.6120	.6097
2.75	.6074	.6051	.6028	.6005	.5983	.5960	.5938	.5915	.5893	.5871	.5849	.5827
3.00	.5805	.5783	.5761	.5739	.5718	.5696	.5674	.5653	.5632	.5611	.5589	.5568
3.25	.5547	.5526	.5506	.5485	.5464	.5444	.5423	.5403	.5382	.5362	.5342	.5322
3.50	.5301	.5281	.5262	.5242	.5222	.5202	.5183	.5163	.5144	.5124	.5105	.5086
3.75	.5067	.5047	.5028	.5009	.4991	.4972	.4953	.4934	.4916	.4897	.4879	.4860
4.00	.4842	.4824	.4806	.4787	.4769	.4751	.4733	.4716	.4698	.4680	.4663	.4645
4.25	.4627	.4610	.4593	.4575	.4558	.4541	.4524	.4507	.4490	.4473	.4456	.4439
4.50	.4422	.4406	.4389	.4373	.4356	.4340	.4323	.4307	.4291	.4275	.4258	.4242
4.75	.4226	.4210	.4195	.4179	.4163	.4147	.4132	.4116	.4101	.4085	.4070	.4054
5.00	.4039	.4024	.4009	.3994	.3978	.3963	.3949	.3934	.3919	.3904	.3889	.3875
5.25	.3860	.3846	.3831	.3817	.3802	.3788	.3774	.3759	.3745	.3731	.3717	.3703
5.50	.3689	.3675	.3661	.3647	.3634	.3620	.3606	.3593	.3579	.3566	.3552	.3539
5.75	.3526	.3512	.3499	.3486	.3473	.3460	.3447	.3434	.3421	.3408	.3395	.3382
6.00	.3369	.3357	.3344	.3331	.3319	.3306	.3294	.3281	.3269	.3257	.3244	.3232
6.25	.3220	.3208	.3196	.3184	.3172	.3160	.3148	.3136	.3124	.3112	.3101	.3089
6.50	.3077	.3066	.3054	.3043	.3031	.3020	.3008	.2997	.2986	.2974	.2963	.2952
6.75	.2941	.2930	.2919	.2908	.2897	.2886	.2875	.2864	.2853	.2843	.2832	.2821
7.00	.2811	.2800	.2789	.2779	.2768	.2758	.2748	.2737	.2727	.2717	.2706	.2696
7.25	.2686	.2676	.2666	.2656	.2646	.2636	.2626	.2616	.2606	.2596	.2586	.2577
7.50	.2567	.2557	.2548	.2538	.2528	.2519	.2509	.2500	.2491	.2481	.2472	.2462
7.75	.2453	.2444	.2435	.2426	.2416	.2407	.2398	.2389	.2380	.2371	.2362	.2353
8.00	.2344	.2336	.2327	.2318	.2309	.2301	.2292	.2283	.2275	.2266	.2258	.2249
8.25	.2241	.2232	.2224	.2215	.2207	.2199	.2190	.2182	.2174	.2166	.2158	.2149
8.50	.2141	.2133	.2125	.2117	.2109	.2101	.2093	.2085	.2078	.2070	.2062	.2054
8.75	.2046	.2039	.2031	.2023	.2016	.2008	.2001	.1993	.1985	.1978	.1971	.1963
9.00	.1956	.1948	.1941	.1934	.1926	.1919	.1912	.1905	.1897	.1890	.1883	.1876
9.25	.1869	.1862	.1855	.1848	.1841	.1834	.1827	.1820	.1813	.1807	.1800	.1793
9.50	.1786	.1779	.1773	.1766	.1759	.1753	.1746	.1740	.1733	.1727	.1720	.1714
9.75	.1707	.1701	.1694	.1688	.1681	.1675	.1669	.1663	.1656	.1650	.1644	.1638
10.00	.1631	.1625	.1619	.1613	.1607	.1601	.1595	.1589	.1583	.1577	.1571	.1565
10.25	.1559	.1553	.1547	.1542	.1536	.1530	.1524	.1518	.1513	.1507	.1501	.1496
10.50	.1490	.1484	.1479	.1473	.1468	.1462	.1457	.1451	.1446	.1440	.1435	.1429
10.75	.1424	.1419	.1413	.1408	.1403	.1397	.1392	.1387	.1382	.1376	.1371	.1366
11.00	.1361	.1356	.1351	.1346	.1340	.1335	.1330	.1325	.1320	.1315	.1310	.1305
11.25	.1301	.1296	.1291	.1286	.1281	.1276	.1271	.1267	.1262	.1257	.1252	.1248
11.50	.1243	.1238	.1234	.1229	.1224	.1220	.1215	.1210	.1206	.1201	.1197	.1192
11.75	.1188	.1183	.1179	.1174	.1170	.1166	.1161	.1157	.1152	.1148	.1144	.1139
12.00	.1135	.1131	.1127	.1122	.1118	.1114	.1110	.1106	.1101	.1097	.1093	.1089
12.25	.1085	.1081	.1077	.1073	.1069	.1065	.1061	.1057	.1053	.1049	.1045	.1041
12.50	.1037	.1033	.1029	.1025	.1021	.1017	.1014	.1010	.1006	.1002	.0998	.0995
12.75	.0991	.0987	.0983	.0980	.0976	.0972	.0969	.0965	.0961	.0958	.0954	.0951
13.00	.0947	.0943	.0940	.0936	.0933	.0929	.0926	.0922	.0919	.0915	.0912	.0908
13.25	.0905	.0902	.0898	.0895	.0891	.0888	.0885	.0881	.0878	.0875	.0871	.0868
13.50	.0865	.0862	.0858	.0855	.0852	.0849	.0846	.0842	.0839	.0836	.0833	.0830

RN - 222

HALF-LIFE 3.82 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
13.75	.0827	.0823	.0820	.0817	.0814	.0811	.0808	.0805	.0802	.0799	.0796	.0793

FR - 221

HALF-LIFE 4.80 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9976	.9952	.9928	.9904	.9880	.9857	.9833	.9809	.9786	.9762	.9739
.20	.9715	.9692	.9669	.9645	.9622	.9599	.9576	.9553	.9530	.9507	.9484	.9461
.40	.9439	.9416	.9393	.9371	.9348	.9326	.9303	.9281	.9259	.9236	.9214	.9192
.60	.9170	.9148	.9126	.9104	.9082	.9060	.9039	.9017	.8995	.8974	.8952	.8930
.80	.8909	.8888	.8866	.8845	.8824	.8802	.8781	.8760	.8739	.8718	.8697	.8676
1.00	.8655	.8635	.8614	.8593	.8572	.8552	.8531	.8511	.8490	.8470	.8450	.8429
1.20	.8409	.8389	.8369	.8348	.8328	.8308	.8288	.8268	.8249	.8229	.8209	.8189
1.40	.8170	.8150	.8130	.8111	.8091	.8072	.8052	.8033	.8014	.7995	.7975	.7956
1.60	.7937	.7918	.7899	.7880	.7861	.7842	.7823	.7804	.7786	.7767	.7748	.7730
1.80	.7711	.7693	.7674	.7656	.7637	.7619	.7601	.7582	.7564	.7546	.7528	.7510
2.00	.7492	.7474	.7456	.7438	.7420	.7402	.7384	.7366	.7349	.7331	.7313	.7296
2.20	.7278	.7261	.7243	.7226	.7209	.7191	.7174	.7157	.7139	.7122	.7105	.7088
2.40	.7071	.7054	.7037	.7020	.7003	.6986	.6970	.6953	.6936	.6920	.6903	.6886
2.60	.6870	.6853	.6837	.6820	.6804	.6788	.6771	.6755	.6739	.6723	.6706	.6690
2.80	.6674	.6658	.6642	.6626	.6610	.6594	.6579	.6563	.6547	.6531	.6515	.6500
3.00	.6484	.6469	.6453	.6438	.6422	.6407	.6391	.6376	.6361	.6345	.6330	.6315
3.20	.6300	.6284	.6269	.6254	.6239	.6224	.6209	.6194	.6179	.6165	.6150	.6135
3.40	.6120	.6106	.6091	.6076	.6062	.6047	.6033	.6018	.6004	.5989	.5975	.5960
3.60	.5946	.5932	.5917	.5903	.5889	.5875	.5861	.5847	.5833	.5819	.5805	.5791
3.80	.5777	.5763	.5749	.5735	.5721	.5708	.5694	.5680	.5667	.5653	.5639	.5626
4.00	.5612	.5599	.5585	.5572	.5559	.5545	.5532	.5519	.5505	.5492	.5479	.5466
4.20	.5453	.5439	.5426	.5413	.5400	.5387	.5374	.5361	.5349	.5336	.5323	.5310
4.40	.5297	.5285	.5272	.5259	.5247	.5234	.5221	.5209	.5196	.5184	.5171	.5159
4.60	.5147	.5134	.5122	.5109	.5097	.5085	.5073	.5061	.5048	.5036	.5024	.5012
4.80	.5000	.4988	.4976	.4964	.4952	.4940	.4928	.4916	.4905	.4893	.4881	.4869
5.00	.4858	.4846	.4834	.4823	.4811	.4800	.4788	.4777	.4765	.4754	.4742	.4731
5.20	.4719	.4708	.4697	.4685	.4674	.4663	.4652	.4641	.4629	.4618	.4607	.4596
5.40	.4585	.4574	.4563	.4552	.4541	.4530	.4519	.4508	.4498	.4487	.4476	.4465
5.60	.4454	.4444	.4433	.4422	.4412	.4401	.4391	.4380	.4370	.4359	.4349	.4338
5.80	.4328	.4317	.4307	.4297	.4286	.4276	.4266	.4255	.4245	.4235	.4225	.4215
6.00	.4204	.4194	.4184	.4174	.4164	.4154	.4144	.4134	.4124	.4114	.4104	.4095
6.20	.4085	.4075	.4065	.4055	.4046	.4036	.4026	.4017	.4007	.3997	.3988	.3978
6.40	.3969	.3959	.3949	.3940	.3930	.3921	.3912	.3902	.3893	.3883	.3874	.3865
6.60	.3856	.3846	.3837	.3828	.3819	.3809	.3800	.3791	.3782	.3773	.3764	.3755
6.80	.3746	.3737	.3728	.3719	.3710	.3701	.3692	.3683	.3674	.3666	.3657	.3648
7.00	.3639	.3630	.3622	.3613	.3604	.3596	.3587	.3578	.3570	.3561	.3553	.3544
7.20	.3536	.3527	.3519	.3510	.3502	.3493	.3485	.3476	.3468	.3460	.3451	.3443
7.40	.3435	.3427	.3418	.3410	.3402	.3394	.3386	.3378	.3369	.3361	.3353	.3345
7.60	.3337	.3329	.3321	.3313	.3305	.3297	.3289	.3281	.3273	.3266	.3258	.3250
7.80	.3242	.3234	.3227	.3219	.3211	.3203	.3196	.3188	.3180	.3173	.3165	.3157
8.00	.3150	.3142	.3135	.3127	.3120	.3112	.3105	.3097	.3090	.3082	.3075	.3068
8.20	.3060	.3053	.3045	.3038	.3031	.3024	.3016	.3009	.3002	.2995	.2987	.2980
8.40	.2973	.2966	.2959	.2952	.2945	.2937	.2930	.2923	.2916	.2909	.2902	.2895
8.60	.2888	.2881	.2875	.2868	.2861	.2854	.2847	.2840	.2833	.2826	.2820	.2813
8.80	.2806	.2799	.2793	.2786	.2779	.2773	.2766	.2759	.2753	.2746	.2739	.2733

HALF-LIFE 4.80 MINUTES CALCULATION INTERVAL 1.0 SECONDS

MINUTES	SECONDS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
9.00	.2726	.2720	.2713	.2707	.2700	.2694	.2687	.2681	.2674	.2668	.2661	.2655
9.20	.2649	.2642	.2636	.2630	.2623	.2617	.2611	.2604	.2598	.2592	.2586	.2579
9.40	.2573	.2567	.2561	.2555	.2549	.2542	.2536	.2530	.2524	.2518	.2512	.2506
9.60	.2500	.2494	.2488	.2482	.2476	.2470	.2464	.2458	.2452	.2446	.2441	.2435
9.80	.2429	.2423	.2417	.2411	.2406	.2400	.2394	.2388	.2383	.2377	.2371	.2365
10.00	.2360	.2354	.2348	.2343	.2337	.2331	.2326	.2320	.2315	.2309	.2304	.2298
10.20	.2293	.2287	.2282	.2276	.2271	.2265	.2260	.2254	.2249	.2243	.2238	.2233
10.40	.2227	.2222	.2217	.2211	.2206	.2201	.2195	.2190	.2185	.2180	.2174	.2169
10.60	.2164	.2159	.2153	.2148	.2143	.2138	.2133	.2128	.2123	.2117	.2112	.2107
10.80	.2102	.2097	.2092	.2087	.2082	.2077	.2072	.2067	.2062	.2057	.2052	.2047
11.00	.2042	.2037	.2033	.2028	.2023	.2018	.2013	.2008	.2003	.1999	.1994	.1989
11.20	.1984	.1979	.1975	.1970	.1965	.1961	.1956	.1951	.1946	.1942	.1937	.1932
11.40	.1928	.1923	.1919	.1914	.1909	.1905	.1900	.1896	.1891	.1886	.1882	.1877
11.60	.1873	.1868	.1864	.1859	.1855	.1850	.1846	.1842	.1837	.1833	.1828	.1824
11.80	.1820	.1815	.1811	.1806	.1802	.1798	.1793	.1789	.1785	.1781	.1776	.1772
12.00	.1768	.1764	.1759	.1755	.1751	.1747	.1742	.1738	.1734	.1730	.1726	.1722
12.20	.1717	.1713	.1709	.1705	.1701	.1697	.1693	.1689	.1685	.1681	.1677	.1673
12.40	.1669	.1665	.1661	.1657	.1653	.1649	.1645	.1641	.1637	.1633	.1629	.1625
12.60	.1621	.1617	.1613	.1609	.1606	.1602	.1598	.1594	.1590	.1586	.1583	.1579
12.80	.1575	.1571	.1567	.1564	.1560	.1556	.1552	.1549	.1545	.1541	.1537	.1534
13.00	.1530	.1526	.1523	.1519	.1515	.1512	.1508	.1505	.1501	.1497	.1494	.1490
13.20	.1487	.1483	.1479	.1476	.1472	.1469	.1465	.1462	.1458	.1455	.1451	.1448
13.40	.1444	.1441	.1437	.1434	.1430	.1427	.1423	.1420	.1417	.1413	.1410	.1406
13.60	.1403	.1400	.1396	.1393	.1390	.1386	.1383	.1380	.1376	.1373	.1370	.1366
13.80	.1363	.1360	.1357	.1353	.1350	.1347	.1344	.1340	.1337	.1334	.1331	.1328
14.00	.1324	.1321	.1318	.1315	.1312	.1308	.1305	.1302	.1249	.1296	.1293	.1290
14.20	.1287	.1284	.1280	.1277	.1274	.1271	.1268	.1265	.1262	.1259	.1256	.1253
14.40	.1250	.1247	.1244	.1241	.1238	.1235	.1232	.1229	.1226	.1223	.1220	.1217
14.60	.1214	.1211	.1209	.1206	.1203	.1200	.1197	.1194	.1191	.1188	.1186	.1183
14.80	.1180	.1177	.1174	.1171	.1169	.1166	.1163	.1160	.1157	.1155	.1152	.1149
15.00	.1146	.1143	.1141	.1138	.1135	.1133	.1130	.1127	.1124	.1122	.1119	.1116
15.20	.1114	.1111	.1108	.1106	.1103	.1100	.1098	.1095	.1092	.1090	.1087	.1085
15.40	.1082	.1079	.1077	.1074	.1072	.1069	.1066	.1064	.1061	.1059	.1056	.1054
15.60	.1051	.1049	.1046	.1044	.1041	.1039	.1036	.1034	.1031	.1029	.1026	.1024
15.80	.1021	.1019	.1016	.1014	.1011	.1009	.1007	.1004	.1002	.0999	.0997	.0995
16.00	.0992	.0990	.0987	.0985	.0983	.0980	.0978	.0976	.0973	.0971	.0969	.0966
16.20	.0964	.0962	.0959	.0957	.0955	.0952	.0950	.0948	.0946	.0943	.0941	.0939
16.40	.0936	.0934	.0932	.0930	.0927	.0925	.0923	.0921	.0919	.0916	.0914	.0912
16.60	.0910	.0908	.0905	.0903	.0901	.0899	.0897	.0895	.0892	.0890	.0888	.0886
16.80	.0884	.0882	.0880	.0878	.0875	.0873	.0871	.0869	.0367	.0865	.0863	.0861
17.00	.0859	.0857	.0855	.0853	.0850	.0848	.0846	.0844	.0842	.0840	.0838	.0836
17.20	.0834	.0832	.0830	.0828	.0826	.0824	.0822	.0820	.0818	.0816	.0814	.0812
17.40	.0811	.0809	.0807	.0805	.0803	.0801	.0749	.0797	.0795	.0793	.0791	.0789

FR - 223

HALF-LIFE 22.00 MINUTES CALCULATION INTERVAL 5.0 SECONDS

	SECONDS											
MINUTES	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9974	.9948	.9922	.9896	.9870	.9844	.9818	.9792	.9766	.9741	.9715
1.00	.9690	.9664	.9639	.9614	.9589	.9563	.9538	.9513	.9488	.9464	.9439	.9414
2.00	.9389	.9365	.9340	.9316	.9291	.9267	.9243	.9218	.9194	.9170	.9146	.9122
3.00	.9098	.9074	.9050	.9027	.9003	.8979	.8956	.8932	.8909	.8886	.8862	.8839
4.00	.8816	.8793	.8770	.8747	.8724	.8701	.8678	.8655	.8633	.8610	.8587	.8565
5.00	.8542	.8520	.8498	.8475	.8453	.8431	.8409	.8387	.8365	.8343	.8321	.8299
6.00	.8278	.8256	.8234	.8213	.8191	.8170	.8148	.8127	.8105	.8084	.8063	.8042
7.00	.8021	.8000	.7979	.7958	.7937	.7916	.7895	.7875	.7854	.7833	.7813	.7792
8.00	.7772	.7752	.7731	.7711	.7691	.7671	.7651	.7630	.7610	.7591	.7571	.7551
9.00	.7531	.7511	.7492	.7472	.7452	.7433	.7413	.7394	.7374	.7355	.7336	.7317
10.00	.7297	.7278	.7259	.7240	.7221	.7202	.7183	.7165	.7146	.7127	.7108	.7090
11.00	.7071	.7053	.7034	.7016	.6997	.6979	.6961	.6942	.6924	.6906	.6888	.6870
12.00	.6852	.6834	.6816	.6798	.6780	.6762	.6745	.6727	.6709	.6692	.6674	.6657
13.00	.6639	.6622	.6604	.6587	.6570	.6553	.6535	.6518	.6501	.6484	.6467	.6450
14.00	.6433	.6416	.6400	.6383	.6366	.6349	.6333	.6316	.6300	.6283	.6267	.6250
15.00	.6234	.6217	.6201	.6185	.6169	.6152	.6136	.6120	.6104	.6088	.6072	.6056
16.00	.6040	.6025	.6009	.5993	.5977	.5962	.5946	.5930	.5915	.5899	.5884	.5868
17.00	.5853	.5838	.5822	.5807	.5792	.5777	.5762	.5747	.5731	.5716	.5701	.5686
18.00	.5672	.5657	.5642	.5627	.5612	.5598	.5583	.5568	.5554	.5539	.5525	.5510
19.00	.5496	.5481	.5467	.5453	.5438	.5424	.5410	.5396	.5381	.5367	.5353	.5339
20.00	.5325	.5311	.5297	.5283	.5270	.5256	.5242	.5228	.5215	.5201	.5187	.5174
21.00	.5160	.5147	.5133	.5120	.5106	.5093	.5079	.5066	.5053	.5040	.5026	.5013
22.00	.5000	.4987	.4974	.4961	.4948	.4935	.4922	.4909	.4896	.4883	.4870	.4858
23.00	.4845	.4832	.4820	.4807	.4794	.4782	.4769	.4757	.4744	.4732	.4719	.4707
24.00	.4695	.4682	.4670	.4658	.4646	.4633	.4621	.4609	.4597	.4585	.4573	.4561
25.00	.4549	.4537	.4525	.4513	.4502	.4490	.4478	.4466	.4454	.4443	.4431	.4420
26.00	.4408	.4396	.4385	.4373	.4362	.4350	.4339	.4328	.4316	.4305	.4294	.4282
27.00	.4271	.4260	.4249	.4238	.4227	.4216	.4204	.4193	.4182	.4171	.4161	.4150
28.00	.4139	.4128	.4117	.4106	.4096	.4085	.4074	.4063	.4053	.4042	.4032	.4021
29.00	.4010	.4000	.3989	.3979	.3969	.3958	.3948	.3937	.3927	.3917	.3906	.3896
30.00	.3886	.3876	.3866	.3856	.3845	.3835	.3825	.3815	.3805	.3795	.3785	.3775
31.00	.3765	.3756	.3746	.3736	.3726	.3716	.3707	.3697	.3687	.3678	.3668	.3658
32.00	.3649	.3639	.3630	.3620	.3611	.3601	.3592	.3582	.3573	.3563	.3554	.3545
33.00	.3536	.3526	.3517	.3508	.3499	.3489	.3480	.3471	.3462	.3453	.3444	.3435
34.00	.3426	.3417	.3408	.3399	.3390	.3381	.3372	.3363	.3355	.3346	.3337	.3328
35.00	.3320	.3311	.3302	.3294	.3285	.3276	.3268	.3259	.3251	.3242	.3234	.3225
36.00	.3217	.3208	.3200	.3191	.3183	.3175	.3166	.3158	.3150	.3142	.3133	.3125
37.00	.3117	.3109	.3101	.3092	.3084	.3076	.3068	.3060	.3052	.3044	.3036	.3028
38.00	.3020	.3012	.3004	.2997	.2989	.2981	.2973	.2965	.2957	.2950	.2942	.2934
39.00	.2927	.2919	.2911	.2904	.2896	.2888	.2881	.2873	.2866	.2858	.2851	.2843
40.00	.2836	.2828	.2821	.2814	.2806	.2799	.2791	.2784	.2777	.2770	.2762	.2755
41.00	.2748	.2741	.2733	.2726	.2719	.2712	.2705	.2698	.2691	.2684	.2677	.2670
42.00	.2663	.2656	.2649	.2642	.2635	.2628	.2621	.2614	.2607	.2600	.2594	.2587
43.00	.2580	.2573	.2567	.2560	.2553	.2546	.2540	.2533	.2526	.2520	.2513	.2507
44.00	.2500	.2493	.2487	.2480	.2474	.2467	.2461	.2454	.2448	.2442	.2435	.2429
45.00	.2422	.2416	.2410	.2403	.2397	.2391	.2385	.2378	.2372	.2366	.2360	.2353
46.00	.2347	.2341	.2335	.2329	.2323	.2317	.2311	.2305	.2299	.2293	.2286	.2281
47.00	.2275	.2269	.2263	.2257	.2251	.2245	.2239	.2233	.2227	.2221	.2216	.2210
48.00	.2204	.2198	.2192	.2187	.2181	.2175	.2170	.2164	.2158	.2153	.2147	.2141
49.00	.2136	.2130	.2124	.2119	.2113	.2108	.2102	.2097	.2091	.2086	.2080	.2075
50.00	.2069	.2064	.2059	.2053	.2048	.2042	.2037	.2032	.2026	.2021	.2016	.2010
51.00	.2005	.2000	.1995	.1989	.1984	.1979	.1974	.1969	.1964	.1958	.1953	.1948
52.00	.1943	.1938	.1933	.1928	.1923	.1918	.1913	.1908	.1903	.1898	.1893	.1888
53.00	.1883	.1878	.1873	.1868	.1863	.1858	.1853	.1848	.1844	.1839	.1834	.1829
54.00	.1824	.1820	.1815	.1810	.1805	.1801	.1796	.1791	.1786	.1782	.1777	.1772

FR - 223

HALF-LIFE 22.00 MINUTES CALCULATION INTERVAL 5.0 SECONDS

	SECONDS											
MINUTES	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
55.00	.1768	.1763	.1759	.1754	.1749	.1745	.1740	.1736	.1731	.1726	.1722	.1717
56.00	.1713	.1708	.1704	.1699	.1695	.1691	.1686	.1682	.1677	.1673	.1669	.1664
57.00	.1660	.1655	.1651	.1647	.1642	.1638	.1634	.1630	.1625	.1621	.1617	.1613
58.00	.1608	.1604	.1600	.1596	.1592	.1587	.1583	.1579	.1575	.1571	.1567	.1563
59.00	.1558	.1554	.1550	.1546	.1542	.1538	.1534	.1530	.1526	.1522	.1518	.1514
60.00	.1510	.1506	.1502	.1498	.1494	.1490	.1487	.1483	.1479	.1475	.1471	.1467
61.00	.1463	.1459	.1456	.1452	.1448	.1444	.1440	.1437	.1433	.1429	.1425	.1422
62.00	.1418	.1414	.1410	.1407	.1403	.1399	.1396	.1392	.1388	.1385	.1381	.1378
63.00	.1374	.1370	.1367	.1363	.1360	.1356	.1352	.1349	.1345	.1342	.1338	.1335
64.00	.1331	.1328	.1324	.1321	.1317	.1314	.1310	.1307	.1304	.1300	.1297	.1293
65.00	.1290	.1287	.1283	.1280	.1277	.1273	.1270	.1267	.1263	.1260	.1257	.1253
66.00	.1250	.1247	.1243	.1240	.1237	.1234	.1230	.1227	.1224	.1221	.1218	.1214
67.00	.1211	.1208	.1205	.1202	.1199	.1195	.1192	.1189	.1186	.1183	.1180	.1177
68.00	.1174	.1171	.1168	.1164	.1161	.1158	.1155	.1152	.1149	.1146	.1143	.1140
69.00	.1137	.1134	.1131	.1128	.1125	.1122	.1119	.1117	.1114	.1111	.1108	.1105
70.00	.1102	.1099	.1096	.1093	.1090	.1088	.1085	.1082	.1079	.1076	.1073	.1071
71.00	.1068	.1065	.1062	.1059	.1057	.1054	.1051	.1048	.1046	.1043	.1040	.1037
72.00	.1035	.1032	.1029	.1027	.1024	.1021	.1019	.1016	.1013	.1011	.1008	.1005
73.00	.1003	.1000	.0997	.0995	.0992	.0990	.0987	.0984	.0982	.0979	.0977	.0974
74.00	.0972	.0969	.0966	.0964	.0961	.0959	.0956	.0954	.0951	.0949	.0946	.0944
75.00	.0941	.0939	.0936	.0934	.0932	.0929	.0927	.0924	.0922	.0919	.0917	.0915
76.00	.0912	.0910	.0907	.0905	.0903	.0900	.0898	.0896	.0893	.0891	.0889	.0886
77.00	.0884	.0882	.0879	.0877	.0875	.0872	.0870	.0868	.0866	.0863	.0861	.0859
78.00	.0856	.0854	.0852	.0850	.0848	.0845	.0843	.0841	.0839	.0836	.0834	.0832
79.00	.0830	.0828	.0826	.0823	.0821	.0819	.0817	.0815	.0813	.0811	.0808	.0806
80.00	.0804	.0802	.0800	.0798	.0796	.0794	.0792	.0790	.0787	.0785	.0783	.0781

RA - 223

HALF-LIFE 11.43 DAYS CALCULATION INTERVAL 2.0 HOURS

	HOURS											
DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9950	.9899	.9850	.9800	.9750	.9701	.9652	.9604	.9555	.9507	.9459
1.00	.9412	.9364	.9317	.9270	.9223	.9177	.9131	.9084	.9039	.8993	.8948	.8903
2.00	.8858	.8813	.8769	.8725	.8681	.8637	.8593	.8550	.8507	.8464	.8421	.8379
3.00	.8337	.8295	.8253	.8211	.8170	.8129	.8088	.8047	.8006	.7966	.7926	.7886
4.00	.7846	.7807	.7767	.7728	.7689	.7650	.7612	.7573	.7535	.7497	.7459	.7422
5.00	.7384	.7347	.7310	.7273	.7237	.7200	.7164	.7128	.7092	.7056	.7021	.6985
6.00	.6950	.6915	.6880	.6845	.6811	.6776	.6742	.6708	.6675	.6641	.6607	.6574
7.00	.6541	.6508	.6475	.6443	.6410	.6378	.6346	.6314	.6282	.6250	.6219	.6187
8.00	.6156	.6125	.6094	.6063	.6033	.6002	.5972	.5942	.5912	.5882	.5853	.5823
9.00	.5794	.5765	.5736	.5707	.5678	.5649	.5621	.5592	.5564	.5536	.5508	.5481
10.00	.5453	.5425	.5398	.[illegible]371	.5344	.5317	.5290	.5263	.5237	.5210	.5184	.5158
11.00	.5132	.5106	.5080	.[illegible]055	.5029	.5004	.4979	.4954	.4929	.4904	.4879	.4855
12.00	.4830	.4806	.4782	.4757	.4733	.4710	.4686	.4662	.4639	.4615	.4592	.4569
13.00	.4546	.4523	.4500	.4478	.4455	.4432	.4410	.4388	.4366	.4344	.4322	.4300
14.00	.4278	.4257	.4235	.4214	.4193	.4172	.4151	.4130	.4109	.4088	.4068	.4047
15.00	.4027	.4006	.3986	.3966	.3946	.3926	.3906	.3887	.3867	.3848	.3828	.3809
16.00	.3790	.3771	.3752	.3733	.3714	.3695	.3677	.3658	.3640	.3621	.3603	.3585
17.00	.3567	.3549	.3531	.3513	.3495	.3478	.3460	.3443	.3425	.3408	.3391	.3374
18.00	.3357	.3340	.3323	.3306	.3290	.3273	.3257	.3240	.3224	.3208	.3191	.3175
19.00	.3159	.3143	.3128	.3112	.3096	.3081	.3065	.3050	.3034	.3019	.3004	.2989

RA - 223

HALF-LIFE 11.43 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
20.00	.2973	.2958	.2944	.2929	.2914	.2899	.2885	.2870	.2856	.2841	.2827	.2813
21.00	.2799	.2784	.2770	.2756	.2743	.2729	.2715	.2701	.2688	.2674	.2661	.2647
22.00	.2634	.2621	.2607	.2594	.2581	.2568	.2555	.2542	.2529	.2517	.2504	.2491
23.00	.2479	.2466	.2454	.2442	.2429	.2417	.2405	.2393	.2381	.2369	.2357	.2345
24.00	.2333	.2321	.2310	.2298	.2286	.2275	.2263	.2252	.2241	.2229	.2218	.2207
25.00	.2196	.2185	.2174	.2163	.2152	.2141	.2130	.2119	.2109	.2098	.2088	.2077
26.00	.2067	.2056	.2046	.2035	.2025	.2015	.2005	.1995	.1985	.1975	.1965	.1955
27.00	.1945	.1935	.1925	.1916	.1906	.1896	.1887	.1877	.1868	.1858	.1849	.1840
28.00	.1830	.1821	.1812	.1803	.1794	.1785	.1776	.1767	.1758	.1749	.1740	.1732
29.00	.1723	.1714	.1705	.1697	.1688	.1680	.1671	.1663	.1655	.1646	.1638	.1630
30.00	.1621	.1613	.1605	.1597	.1589	.1581	.1573	.1565	.1557	.1549	.1542	.1534
31.00	.1526	.1518	.1511	.1503	.1495	.1488	.1480	.1473	.1466	.1458	.1451	.1443
32.00	.1436	.1429	.1422	.1415	.1407	.1400	.1393	.1386	.1379	.1372	.1365	.1359
33.00	.1352	.1345	.1338	.1331	.1325	.1318	.1311	.1305	.1298	.1292	.1285	.1279
34.00	.1272	.1266	.1259	.1253	.1247	.1240	.1234	.1228	.1222	.1216	.1209	.1203
35.00	.1197	.1191	.1185	.1179	.1173	.1167	.1162	.1156	.1150	.1144	.1138	.1133
36.00	.1127	.1121	.1116	.1110	.1104	.1099	.1093	.1088	.1082	.1077	.1071	.1066
37.00	.1061	.1055	.1050	.1045	.1039	.1034	.1029	.1024	.1019	.1013	.1008	.1003
38.00	.0998	.0993	.0988	.0983	.0978	.0973	.0968	.0963	.0959	.0954	.0949	.0944
39.00	.0939	.0935	.0930	.0925	.0921	.0916	.0911	.0907	.0902	.0898	.0893	.0889
40.00	.0884	.0880	.0875	.0871	.0866	.0862	.0858	.0853	.0849	.0845	.0841	.0836
41.00	.0832	.0828	.0824	.0820	.0815	.0811	.0807	.0803	.0799	.0795	.0791	.0787

RA - 224

HALF-LIFE 3.64 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
0.00	1.0000	.9960	.9921	.9882	.9843	.9804	.9765	.9726	.9688	.9649	.9611	.9573
.25	.9535	.9497	.9460	.9422	.9385	.9348	.9311	.9274	.9237	.9201	.9164	.9128
.50	.9092	.9056	.9020	.8984	.8949	.8913	.8878	.8843	.8808	.8773	.8738	.8704
.75	.8669	.8635	.8601	.8567	.8533	.8499	.8465	.8432	.8398	.8365	.8332	.8299
1.00	.8266	.8233	.8201	.8168	.8136	.8104	.8072	.8040	.8008	.7976	.7945	.7913
1.25	.7882	.7851	.7819	.7789	.7758	.7727	.7696	.7666	.7636	.7605	.7575	.7545
1.50	.7515	.7486	.7456	.7426	.7397	.7368	.7339	.7310	.7281	.7252	.7223	.7194
1.75	.7166	.7138	.7109	.7081	[illegible]	.7025	.6997	.6970	.6942	.6915	.6887	.6860
2.00	.6833	.6806	.6779	.6752	.6725	.6699	.6672	.6646	.6619	.6593	.6567	.6541
2.25	.6515	.6489	.6464	.6438	.6413	.6387	.6362	.6337	.6312	.6287	.6262	.6237
2.50	.6212	.6188	.6163	.6139	.6114	.6090	.6066	.6042	.6018	.5994	.5971	.5947
2.75	.5923	.5900	.5877	.5853	.5830	.5807	.5784	.5761	.5738	.5716	.5693	.5670
3.00	.5648	.5626	.5603	.5581	.5559	.5537	.5515	.5493	.5472	.5450	.5428	.5407
3.25	.5385	.5364	.5343	.5322	.5301	.5280	.5259	.5238	.5217	.5197	.5176	.5156
3.50	.5135	.5115	.5095	.5074	.5054	.5034	.5014	.4994	.4975	.4955	.4935	.4916
3.75	.4896	.4877	.4858	.4838	.4819	.4800	.4781	.4762	.4743	.4725	.4706	.4687
4.00	.4669	.4650	.4632	.4613	.4595	.4577	.4559	.4541	.4523	.4505	.4487	.4469
4.25	.4452	.4434	.4416	.4399	.4382	.4364	.4347	.4330	.4313	.4296	.4279	.4262
4.50	.4245	.4228	.4211	.4194	.4178	.4161	.4145	.4128	.4112	.4096	.4080	.4063
4.75	.4047	.4031	.4015	.3999	.3984	.3968	.3952	.3937	.3921	.3905	.3890	.3875
5.00	.3859	.3844	.3829	.3814	.3798	.3783	.3768	.3754	.3739	.3724	.3709	.3694
5.25	.3680	.3665	.3651	.3636	.3622	.3608	.3593	.3579	.3565	.3551	.3537	.3523
5.50	.3509	.3495	.3481	.3467	.3453	.3440	.3426	.3413	.3399	.3386	.3372	.3359
5.75	.3346	.3332	.3319	.3306	.3293	.3280	.3267	.3254	.3241	.3228	.3215	.3203
6.00	.3190	.3177	.3165	.3152	.3140	.3127	.3115	.3103	.3090	.3078	.3066	.3054

RA - 224

HALF-LIFE 3.64 DAYS CALCULATION INTERVAL .5 HOURS

DAYS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5
6.25	.3042	.3030	.3018	.3006	.2994	.2982	.2970	.2958	.2947	.2935	.2923	.2912
6.50	.2900	.2889	.2877	.2866	.2855	.2843	.2832	.2821	.2810	.2799	.2788	.2776
6.75	.2765	.2755	.2744	.2733	.2722	.2711	.2700	.2690	.2679	.2668	.2658	.2647
7.00	.2637	.2626	.2616	.2606	.2595	.2585	.2575	.2565	.2555	.2544	.2534	.2524
7.25	.2514	.2504	.2494	.2485	.2475	.2465	.2455	.2445	.2436	.2426	.2417	.2407
7.50	.2397	.2388	.2378	.2369	.2360	.2350	.2341	.2332	.2323	.2313	.2304	.2295
7.75	.2286	.2277	.2268	.2259	.2250	.2241	.2232	.2223	.2215	.2206	.2197	.2188
8.00	.2180	.2171	.2162	.2154	.2145	.2137	.2128	.2120	.2112	.2103	.2095	.2087
8.25	.2078	.2070	.2062	.2054	.2046	.2038	.2029	.2021	.2013	.2005	.1998	.1990
8.50	.1982	.1974	.1966	.1958	.1951	.1943	.1935	.1927	.1920	.1912	.1905	.1897
8.75	.1890	.1882	.1875	.1867	.1860	.1852	.1845	.1838	.1831	.1823	.1816	.1809
9.00	.1802	.1795	.1788	.1780	.1773	.1766	.1759	.1752	.1745	.1739	.1732	.1725
9.25	.1718	.1711	.1704	.1698	.1691	.1684	.1678	.1671	.1664	.1658	.1651	.1645
9.50	.1638	.1632	.1625	.1619	.1612	.1606	.1600	.1593	.1587	.1581	.1574	.1568
9.75	.1562	.1556	.1550	.1543	.1537	.1531	.1525	.1519	.1513	.1507	.1501	.1495
10.00	.1489	.1483	.1478	.1472	.1466	.1460	.1454	.1449	.1443	.1437	.1431	.1426
10.25	.1420	.1414	.1409	.1403	.1398	.1392	.1387	.1381	.1376	.1370	.1365	.1359
10.50	.1354	.1349	.1343	.1338	.1333	.1327	.1322	.1317	.1312	.1307	.1301	.1296
10.75	.1291	.1286	.1281	.1276	.1271	.1266	.1261	.1256	.1251	.1246	.1241	.1236
11.00	.1231	.1226	.1221	.1217	.1212	.1207	.1202	.1197	.1193	.1188	.1183	.1179
11.25	.1174	.1169	.1165	.1160	.1155	.1151	.1146	.1142	.1137	.1133	.1128	.1124
11.50	.1119	.1115	.1110	.1106	.1102	.1097	.1093	.1089	.1084	.1080	.1076	.1071
11.75	.1067	.1063	.1059	.1055	.1050	.1046	.1042	.1038	.1034	.1030	.1026	.1022
12.00	.1018	.1014	.1010	.1006	.1002	.0998	.0994	.0990	.0986	.0982	.0978	.0974
12.25	.0970	.0966	.0963	.0959	.0955	.0951	.0948	.0944	.0940	.0936	.0933	.0929
12.50	.0925	.0922	.0918	.0914	.0911	.0907	.0903	.0900	.0896	.0893	.0889	.0886
12.75	.0882	.0879	.0875	.0872	.0868	.0865	.0861	.0858	.0855	.0851	.0848	.0845
13.00	.0841	.0838	.0835	.0831	.0828	.0825	.0821	.0818	.0815	.0812	.0808	.0805
13.25	.0802	.0799	.0796	.0793	.0789	.0786	.0783	.0780	.0777	.0774	.0771	.0768

RA - 225

HALF-LIFE 14.80 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9961	.9922	.9884	.9845	.9807	.9769	.9730	.9693	.9655	.9617	.9580
1.00	.9542	.9505	.9468	.9431	.9395	.9358	.9322	.9285	.9249	.9213	.9177	.9141
2.00	.9106	.9070	.9035	.9000	.8965	.8930	.8895	.8860	.8826	.8792	.8757	.8723
3.00	.8689	.8655	.8622	.8588	.8555	.8521	.8488	.8455	.8422	.8389	.8357	.8324
4.00	.8292	.8259	.8227	.8195	.8163	.8131	.8100	.8068	.8037	.8005	.7974	.7943
5.00	.7912	.7881	.7851	.7820	.7790	.7759	.7729	.7699	.7669	.7639	.7609	.7580
6.00	.7550	.7521	.7492	.7462	.7433	.7404	.7375	.7347	.7318	.7290	.7261	.7233
7.00	.7205	.7177	.7149	.7121	.7093	.7066	.7038	.7011	.6983	.6956	.6929	.6902
8.00	.6875	.6848	.6822	.6795	.6769	.6742	.6716	.6690	.6664	.6638	.6612	.6586
9.00	.6561	.6535	.6510	.6484	.6459	.6434	.6409	.6384	.6359	.6334	.6309	.6285
10.00	.6260	.6236	.6212	.6188	.6163	.6139	.6115	.6092	.6068	.6044	.6021	.5997
11.00	.5974	.5951	.5927	.5904	.5881	.5859	.5836	.5813	.5790	.5768	.5745	.5723
12.00	.5701	.5678	.5656	.5634	.5612	.5590	.5569	.5547	.5525	.5504	.5482	.5461
13.00	.5440	.5419	.5397	.5376	.5356	.5335	.5314	.5293	.5273	.5252	.5232	.5211
14.00	.5191	.5171	.5151	.5130	.5110	.5091	.5071	.5051	.5031	.5012	.4992	.4973
15.00	.4953	.4934	.4915	.4896	.4877	.4858	.4839	.4820	.4801	.4782	.4764	.4745
16.00	.4727	.4708	.4690	.4672	.4654	.4635	.4617	.4599	.4581	.4564	.4546	.4528
17.00	.4510	.4493	.4475	.4458	.4441	.4423	.4406	.4389	.4372	.4355	.4338	.4321
18.00	.4304	.4287	.4271	.4254	.4237	.4221	.4204	.4188	.4172	.4156	.4139	.4123
19.00	.4107	.4091	.4075	.4059	.4044	.4028	.4012	.3996	.3981	.3965	.3950	.3935

RA - 225

HALF-LIFE 14.80 DAYS CALCULATION INTERVAL 2.0 HOURS

	HOURS											
DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
20.00	.3919	.3904	.3889	.3874	.3859	.3844	.3829	.3814	.3799	.3784	.3769	.3755
21.00	.3740	.3725	.3711	.3696	.3682	.3668	.3653	.3639	.3625	.3611	.3597	.3583
22.00	.3569	.3555	.3541	.3527	.3514	.3500	.3486	.3473	.3459	.3446	.3432	.3419
23.00	.3406	.3392	.3379	.3366	.3353	.3340	.3327	.3314	.3301	.3288	.3275	.3262
24.00	.3250	.3237	.3224	.3212	.3199	.3187	.3174	.3162	.3150	.3138	.3125	.3113
25.00	.3101	.3089	.3077	.3065	.3053	.3041	.3029	.3017	.3006	.2994	.2982	.2971
26.00	.2959	.2948	.2936	.2925	.2913	.2902	.2891	.2879	.2868	.2857	.2846	.2835
27.00	.2824	.2813	.2802	.2791	.2780	.2769	.2758	.2748	.2737	.2726	.2716	.2705
28.00	.2695	.2684	.2674	.2663	.2653	.2642	.2632	.2622	.2612	.2602	.2591	.2581
29.00	.2571	.2561	.2551	.2541	.2531	.2522	.2512	.2502	.2492	.2482	.2473	.2463
30.00	.2454	.2444	.2435	.2425	.2416	.2406	.2397	.2387	.2378	.2369	.2360	.2350
31.00	.2341	.2332	.2323	.2314	.2305	.2296	.2287	.2278	.2269	.2261	.2252	.2243
32.00	.2234	.2226	.2217	.2208	.2200	.2191	.2183	.2174	.2166	.2157	.2149	.2140
33.00	.2132	.2124	.2115	.2107	.2099	.2091	.2083	.2075	.2066	.2058	.2050	.2042
34.00	.2034	.2027	.2019	.2011	.2003	.1995	.1987	.1980	.1972	.1964	.1957	.1949
35.00	.1941	.1934	.1926	.1919	.1911	.1904	.1896	.1889	.1882	.1874	.1867	.1860
36.00	.1853	.1845	.1838	.1831	.1824	.1817	.1810	.1803	.1796	.1789	.1782	.1775
37.00	.1768	.1761	.1754	.1747	.1740	.1734	.1727	.1720	.1713	.1707	.1700	.1693
38.00	.1687	.1680	.1674	.1667	.1661	.1654	.1648	.1641	.1635	.1629	.1622	.1616
39.00	.1610	.1603	.1597	.1591	.1585	.1579	.1572	.1566	.1560	.1554	.1548	.1542
40.00	.1536	.1530	.1524	.1518	.1512	.1506	.1500	.1495	.1489	.1483	.1477	.1472
41.00	.1466	.1460	.1454	.1449	.1443	.1437	.1432	.1426	.1421	.1415	.1410	.1404
42.00	.1399	.1393	.1388	.1382	.1377	.1372	.1366	.1361	.1356	.1350	.1345	.1340
43.00	.1335	.1330	.1324	.1319	.1314	.1309	.1304	.1299	.1294	.1289	.1284	.1279
44.00	.1274	.1269	.1264	.1259	.1254	.1249	.1244	.1239	.1234	.1230	.1225	.1220
45.00	.1215	.1211	.1206	.1201	.1197	.1192	.1187	.1183	.1178	.1173	.1169	.1164
46.00	.1160	.1155	.1151	.1146	.1142	.1137	.1133	.1128	.1124	.1120	.1115	.1111
47.00	.1107	.1102	.1098	.1094	.1090	.1085	.1081	.1077	.1073	.1068	.1064	.1060
48.00	.1056	.1052	.1048	.1044	.1040	.1036	.1032	.1028	.1024	.1020	.1016	.1012
49.00	.1008	.1004	.1000	.0996	.0992	.0988	.0984	.0981	.0977	.0973	.0969	.0965
50.00	.0962	.0958	.0954	.0950	.0947	.0943	.0939	.0936	.0932	.0928	.0925	.0921
51.00	.0918	.0914	.0910	.0907	.0903	.0900	.0896	.0893	.0889	.0886	.0883	.0879
52.00	.0876	.0872	.0869	.0865	.0862	.0859	.0855	.0852	.0849	.0845	.0842	.0839
53.00	.0836	.0832	.0829	.0826	.0823	.0819	.0816	.0813	.0810	.0807	.0804	.0800
54.00	.0797	.0794	.0791	.0788	.0785	.0782	.0779	.0776	.0773	.0770	.0767	.0764

RA - 226

HALF-LIFE 1602.00 YEARS CALCULATION INTERVAL 50.0 YEARS

	YEARS									
YEARS	0.0	50.0	100.0	150.0	200.0	250.0	300.0	350.0	400.0	450.0
0.0	1.0000	.9786	.9577	.9372	.9171	.8975	.8783	.8595	.8411	.8231
500.0	.8055	.7882	.7714	.7548	.7387	.7229	.7074	.6923	.6775	.6630
1000.0	.6488	.6349	.6213	.6080	.5950	.5823	.5698	.5576	.5457	.5340
1500.0	.5226	.5114	.5004	.4897	.4792	.4690	.4589	.4491	.4395	.4301
2000.0	.4209	.4119	.4031	.3945	.3860	.3778	.3697	.3618	.3540	.3464
2500.0	.3390	.3318	.3247	.3177	.3109	.3043	.2978	.2914	.2851	.2790
3000.0	.2731	.2672	.2615	.2559	.2504	.2451	.2398	.2347	.2297	.2248
3500.0	.2199	.2152	.2106	.2061	.2017	.1974	.1932	.1890	.1850	.1810
4000.0	.1772	.1734	.1697	.1660	.1625	.1590	.1556	.1523	.1490	.1458
4500.0	.1427	.1396	.1367	.1337	.1309	.1281	.1253	.1226	.1200	.1174
5000.0	.1149	.1125	.1101	.1077	.1054	.1032	.1009	.0988	.0967	.0946
5500.0	.0926	.0906	.0887	.0868	.0849	.0831	.0813	.0796	.0779	.0762

RA - 228

HALF-LIFE 6.70 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
0.0	1.0000	.9972	.9943	.9915	.9887	.9859	.9831	.9804	.9776	.9748
100.0	.9721	.9693	.9666	.9638	.9611	.9584	.9557	.9530	.9503	.9476
200.0	.9449	.9422	.9395	.9369	.9342	.9316	.9290	.9263	.9237	.9211
300.0	.9185	.9159	.9133	.9107	.9081	.9056	.9030	.9004	.8979	.8953
400.0	.8928	.8903	.8878	.8853	.8828	.8803	.8778	.8753	.8728	.8703
500.0	.8679	.8654	.8630	.8605	.8581	.8557	.8532	.8508	.8484	.8460
600.0	.8436	.8412	.8388	.8365	.8341	.8317	.8294	.8270	.8247	.8224
700.0	.8200	.8177	.8154	.8131	.8108	.8085	.8062	.8039	.8017	.7994
800.0	.7971	.7949	.7926	.7904	.7881	.7859	.7837	.7815	.7792	.7770
900.0	.7748	.7727	.7705	.7683	.7661	.7639	.7618	.7596	.7575	.7553
1000.0	.7532	.7511	.7489	.7468	.7447	.7426	.7405	.7384	.7363	.7342
1100.0	.7321	.7301	.7280	.7259	.7239	.7218	.7198	.7178	.7157	.7137
1200.0	.7117	.7097	.7077	.7057	.7037	.7017	.6997	.6977	.6957	.6938
1300.0	.6918	.6898	.6879	.6859	.6840	.6821	.6801	.6782	.6763	.6744
1400.0	.6725	.6706	.6687	.6668	.6649	.6630	.6611	.6592	.6574	.6555
1500.0	.6537	.6518	.6500	.6481	.6463	.6445	.6426	.6408	.6390	.6372
1600.0	.6354	.6336	.6318	.6300	.6282	.6265	.6247	.6229	.6212	.6194
1700.0	.6176	.6159	.6142	.6124	.6107	.6090	.6072	.6055	.6038	.6021
1800.0	.6004	.5987	.5970	.5953	.5936	.5919	.5903	.5886	.5869	.5853
1900.0	.5836	.5820	.5803	.5787	.5770	.5754	.5738	.5721	.5705	.5689
2000.0	.5673	.5657	.5641	.5625	.5609	.5593	.5577	.5562	.5546	.5530
2100.0	.5514	.5499	.5483	.5468	.5452	.5437	.5421	.5406	.5391	.5376
2200.0	.5360	.5345	.5330	.5315	.5300	.5285	.5270	.5255	.5240	.5225
2300.0	.5211	.5196	.5181	.5166	.5152	.5137	.5123	.5108	.5094	.5079
2400.0	.5065	.5051	.5036	.5022	.5008	.4994	.4979	.4965	.4951	.4937
2500.0	.4923	.4909	.4896	.4882	.4868	.4854	.4840	.4827	.4813	.4799
2600.0	.4786	.4772	.4759	.4745	.4732	.4718	.4705	.4692	.4678	.4665
2700.0	.4652	.4639	.4626	.4613	.4600	.4587	.4574	.4561	.4548	.4535
2800.0	.4522	.4509	.4496	.4484	.4471	.4458	.4446	.4433	.4421	.4408
2900.0	.4396	.4383	.4371	.4358	.4346	.4334	.4322	.4309	.4297	.4285
3000.0	.4273	.4261	.4249	.4237	.4225	.4213	.4201	.4189	.4177	.4165
3100.0	.4153	.4142	.4130	.4118	.4107	.4095	.4083	.4072	.4060	.4049
3200.0	.4037	.4026	.4015	.4003	.3992	.3981	.3969	.3958	.3947	.3936
3300.0	.3925	.3913	.3902	.3891	.3880	.3869	.3858	.3847	.3837	.3826
3400.0	.3815	.3804	.3793	.3783	.3772	.3761	.3751	.3740	.3729	.3719
3500.0	.3708	.3698	.3687	.3677	.3666	.3656	.3646	.3635	.3625	.3615
3600.0	.3605	.3594	.3584	.3574	.3564	.3554	.3544	.3534	.3524	.3514
3700.0	.3504	.3494	.3484	.3474	.3464	.3455	.3445	.3435	.3425	.3416
3800.0	.3406	.3396	.3387	.3377	.3368	.3358	.3349	.3339	.3330	.3320
3900.0	.3311	.3301	.3292	.3283	.3273	.3264	.3255	.3246	.3237	.3227
4000.0	.3218	.3209	.3200	.3191	.3182	.3173	.3164	.3155	.3146	.3137
4100.0	.3128	.3119	.3111	.3102	.3093	.3084	.3076	.3067	.3058	.3050
4200.0	.3041	.3032	.3024	.3015	.3007	.2998	.2990	.2981	.2973	.2964
4300.0	.2956	.2948	.2939	.2931	.2923	.2914	.2906	.2898	.2890	.2881
4400.0	.2873	.2865	.2857	.2849	.2841	.2833	.2825	.2817	.2809	.2801
4500.0	.2793	.2785	.2777	.2769	.2762	.2754	.2746	.2738	.2730	.2723
4600.0	.2715	.2707	.2700	.2692	.2684	.2677	.2669	.2662	.2654	.2647
4700.0	.2639	.2632	.2624	.2617	.2609	.2602	.2595	.2587	.2580	.2573
4800.0	.2565	.2558	.2551	.2544	.2536	.2529	.2522	.2515	.2508	.2501
4900.0	.2494	.2487	.2480	.2473	.2466	.2459	.2452	.2445	.2438	.2431
5000.0	.2424	.2417	.2410	.2403	.2397	.2390	.2383	.2376	.2370	.2363
5100.0	.2356	.2350	.2343	.2336	.2330	.2323	.2316	.2310	.2303	.2297
5200.0	.2290	.2284	.2277	.2271	.2265	.2258	.2252	.2245	.2239	.2233
5300.0	.2226	.2220	.2214	.2208	.2201	.2195	.2189	.2183	.2176	.2170
5400.0	.2164	.2158	.2152	.2146	.2140	.2134	.2128	.2122	.2116	.2110

RA - 228

HALF-LIFE 6.70 YEARS CALCULATION INTERVAL 10.0 DAYS

DAYS	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0
5500.0	.2104	.2098	.2092	.2086	.2080	.2074	.2068	.2062	.2056	.2051
5600.0	.2045	.2039	.2033	.2028	.2022	.2016	.2010	.2005	.1999	.1993
5700.0	.1988	.1982	.1976	.1971	.1965	.1960	.1954	.1949	.1943	.1938
5800.0	.1932	.1927	.1921	.1916	.1910	.1905	.1900	.1894	.1889	.1884
5900.0	.1878	.1873	.1868	.1862	.1857	.1852	.1847	.1841	.1836	.1831
6000.0	.1826	.1821	.1815	.1810	.1805	.1800	.1795	.1790	.1785	.1780
6100.0	.1775	.1770	.1765	.1760	.1755	.1750	.1745	.1740	.1735	.1730
6200.0	.1725	.1720	.1715	.1710	.1706	.1701	.1696	.1691	.1686	.1682
6300.0	.1677	.1672	.1667	.1663	.1658	.1653	.1649	.1644	.1639	.1635
6400.0	.1630	.1625	.1621	.1616	.1612	.1607	.1603	.1598	.1593	.1589
6500.0	.1584	.1580	.1575	.1571	.1567	.1562	.1558	.1553	.1549	.1545
6600.0	.1540	.1536	.1531	.1527	.1523	.1519	.1514	.1510	.1506	.1501
6700.0	.1497	.1493	.1489	.1484	.1480	.1476	.1472	.1468	.1464	.1459
6800.0	.1455	.1451	.1447	.1443	.1439	.1435	.1431	.1427	.1423	.1419
6900.0	.1415	.1411	.1407	.1403	.1399	.1395	.1391	.1387	.1383	.1379
7000.0	.1375	.1371	.1367	.1363	.1360	.1356	.1352	.1348	.1344	.1340
7100.0	.1337	.1333	.1329	.1325	.1322	.1318	.1314	.1310	.1307	.1303
7200.0	.1299	.1296	.1292	.1288	.1285	.1281	.1277	.1274	.1270	.1267
7300.0	.1263	.1259	.1256	.1252	.1249	.1245	.1242	.1238	.1235	.1231
7400.0	.1228	.1224	.1221	.1217	.1214	.1210	.1207	.1204	.1200	.1197
7500.0	.1193	.1190	.1187	.1183	.1180	.1177	.1173	.1170	.1167	.1163
7600.0	.1160	.1157	.1153	.1150	.1147	.1144	.1140	.1137	.1134	.1131
7700.0	.1128	.1124	.1121	.1118	.1115	.1112	.1109	.1105	.1102	.1099
7800.0	.1096	.1093	.1090	.1087	.1084	.1081	.1078	.1075	.1072	.1069
7900.0	.1065	.1062	.1059	.1056	.1053	.1050	.1048	.1045	.1042	.1039
8000.0	.1036	.1033	.1030	.1027	.1024	.1021	.1018	.1015	.1012	.1010
8100.0	.1007	.1004	.1001	.0998	.0995	.0993	.0990	.0987	.0984	.0981
8200.0	.0979	.0976	.0973	.0970	.0968	.0965	.0962	.0959	.0957	.0954
8300.0	.0951	.0949	.0946	.0943	.0941	.0938	.0935	.0933	.0930	.0927
8400.0	.0925	.0922	.0919	.0917	.0914	.0912	.0909	.0907	.0904	.0901
8500.0	.0899	.0896	.0894	.0891	.0889	.0886	.0884	.0881	.0879	.0876
8600.0	.0874	.0871	.0869	.0866	.0864	.0861	.0859	.0857	.0854	.0852
8700.0	.0849	.0847	.0845	.0842	.0840	.0837	.0835	.0833	.0830	.0828
8800.0	.0826	.0823	.0821	.0819	.0816	.0814	.0812	.0809	.0807	.0805
8900.0	.0803	.0800	.0798	.0796	.0793	.0791	.0789	.0787	.0785	.0782

AC - 225

HALF-LIFE 10.00 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9942	.9885	.9828	.9772	.9715	.9659	.9604	.9548	.9493	.9439	.9384
1.00	.9330	.9277	.9223	.9170	.9117	.9065	.9013	.8961	.8909	.8858	.8807	.8756
2.00	.8706	.8655	.8606	.8556	.8507	.8458	.8409	.8361	.8312	.8265	.8217	.8170
3.00	.8123	.8076	.8029	.7983	.7937	.7891	.7846	.7801	.7756	.7711	.7667	.7622
4.00	.7579	.7535	.7492	.7448	.7405	.7363	.7320	.7278	.7236	.7195	.7153	.7112
5.00	.7071	.7030	.6990	.6950	.6910	.6870	.6830	.6791	.6752	.6713	.6674	.6636
6.00	.6598	.6560	.6522	.6484	.6447	.6410	.6373	.6336	.6300	.6263	.6227	.6191
7.00	.6156	.6120	.6085	.6050	.6015	.5980	.5946	.5912	.5878	.5844	.5810	.5777
8.00	.5743	.5710	.5678	.5645	.5612	.5580	.5548	.5516	.5484	.5453	.5421	.5390
9.00	.5359	.5328	.5297	.5267	.5236	.5206	.5176	.5147	.5117	.5087	.5058	.5029
10.00	.5000	.4971	.4943	.4914	.4886	.4858	.4830	.4802	.4774	.4747	.4719	.4692
11.00	.4665	.4638	.4612	.4585	.4559	.4532	.4506	.4480	.4454	.4429	.4403	.4378
12.00	.4353	.4328	.4303	.4278	.4253	.4229	.4204	.4180	.4156	.4132	.4108	.4085
13.00	.4061	.4038	.4015	.3991	.3969	.3946	.3923	.3900	.3878	.3856	.3833	.3811
14.00	.3789	.3767	.3746	.3724	.3703	.3681	.3660	.3639	.3618	.3597	.3577	.3556

AC - 225

HALF-LIFE 10.00 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
15.00	.3536	.3515	.3495	.3475	.3455	.3435	.3415	.3395	.3376	.3356	.3337	.3318
16.00	.3299	.3280	.3261	.3242	.3223	.3205	.3186	.3168	.3150	.3132	.3114	.3096
17.00	.3078	.3060	.3043	.3025	.3008	.2990	.2973	.2956	.2939	.2922	.2905	.2888
18.00	.2872	.2855	.2839	.2822	.2806	.2790	.2774	.2758	.2742	.2726	.2711	.2695
19.00	.2679	.2664	.2649	.2633	.2618	.2603	.2588	.2573	.2558	.2544	.2529	.2514
20.00	.2500	.2486	.2471	.2457	.2443	.2429	.2415	.2401	.2387	.2373	.2360	.2346
21.00	.2333	.2319	.2306	.2293	.2279	.2266	.2253	.2240	.2227	.2214	.2202	.2189
22.00	.2176	.2164	.2151	.2139	.2127	.2114	.2102	.2090	.2078	.2066	.2054	.2042
23.00	.2031	.2019	.2007	.1996	.1984	.1973	.1961	.1950	.1939	.1928	.1917	.1906
24.00	.1895	.1884	.1873	.1862	.1851	.1841	.1830	.1820	.1809	.1799	.1788	.1778
25.00	.1768	.1758	.1747	.1737	.1727	.1717	.1708	.1698	.1688	.1678	.1669	.1659
26.00	.1649	.1640	.1630	.1621	.1612	.1602	.1593	.1584	.1575	.1566	.1557	.1548
27.00	.1539	.1530	.1521	.1512	.1504	.1495	.1487	.1478	.1469	.1461	.1453	.1444
28.00	.1436	.1428	.1419	.1411	.1403	.1395	.1387	.1379	.1371	.1363	.1355	.1347
29.00	.1340	.1332	.1324	.1317	.1309	.1302	.1294	.1287	.1279	.1272	.1265	.1257
30.00	.1250	.1243	.1236	.1229	.1221	.1214	.1207	.1200	.1194	.1187	.1180	.1173
31.00	.1166	.1160	.1153	.1146	.1140	.1133	.1127	.1120	.1114	.1107	.1101	.1094
32.00	.1088	.1082	.1076	.1069	.1063	.1057	.1051	.1045	.1039	.1033	.1027	.1021
33.00	.1015	.1009	.1004	.0998	.0992	.0986	.0981	.0975	.0969	.0964	.0958	.0953
34.00	.0947	.0942	.0936	.0931	.0926	.0920	.0915	.0910	.0905	.0899	.0894	.0889
35.00	.0884	.0879	.0874	.0869	.0864	.0859	.0854	.0849	.0844	.0839	.0834	.0829
36.00	.0825	.0820	.0815	.0811	.0806	.0801	.0797	.0792	.0787	.0783	.0778	.0774

AC - 227

HALF-LIFE 21.60 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	DAYS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9974	.9947	.9921	.9895	.9869	.9843	.9817	.9791	.9765
300.0	.9740	.9714	.9688	.9663	.9637	.9612	.9587	.9562	.9536	.9511
600.0	.9486	.9461	.9436	.9411	.9387	.9362	.9337	.9313	.9288	.9264
900.0	.9239	.9215	.9191	.9166	.9142	.9118	.9094	.9070	.9046	.9022
1200.0	.8999	.8975	.8951	.8928	.8904	.8881	.8857	.8834	.8811	.8788
1500.0	.8764	.8741	.8718	.8695	.8673	.8650	.8627	.8604	.8581	.8559
1800.0	.8536	.8514	.8491	.8469	.8447	.8425	.8402	.8380	.8358	.8336
2100.0	.8314	.8292	.8270	.8249	.8227	.8205	.8184	.8162	.8141	.8119
2400.0	.8098	.8076	.8055	.8034	.8013	.7992	.7971	.7950	.7929	.7908
2700.0	.7887	.7866	.7845	.7825	.7804	.7784	.7763	.7743	.7722	.7702
3000.0	.7682	.7661	.7641	.7621	.7601	.7581	.7561	.7541	.7521	.7501
3300.0	.7482	.7462	.7442	.7423	.7403	.7384	.7364	.7345	.7325	.7306
3600.0	.7287	.7268	.7249	.7229	.7210	.7191	.7172	.7154	.7135	.7116
3900.0	.7097	.7079	.7060	.7041	.7023	.7004	.6986	.6967	.6949	.6931
4200.0	.6912	.6894	.6876	.6858	.6840	.6822	.6804	.6786	.6768	.6750
4500.0	.6733	.6715	.6697	.6679	.6662	.6644	.6627	.6609	.6592	.6575
4800.0	.6557	.6540	.6523	.6506	.6488	.6471	.6454	.6437	.6420	.6403
5100.0	.6387	.6370	.6353	.6336	.6320	.6303	.6286	.6270	.6253	.6237
5400.0	.6220	.6204	.6188	.6171	.6155	.6139	.6123	.6107	.6090	.6074
5700.0	.6058	.6042	.6027	.6011	.5995	.5979	.5963	.5948	.5932	.5916
6000.0	.5901	.5885	.5870	.5854	.5839	.5823	.5808	.5793	.5778	.5762
6300.0	.5747	.5732	.5717	.5702	.5687	.5672	.5657	.5642	.5627	.5612
6600.0	.5598	.5583	.5568	.5553	.5539	.5524	.5510	.5495	.5481	.5466
6900.0	.5452	.5437	.5423	.5409	.5395	.5380	.5366	.5352	.5338	.5324
7200.0	.5310	.5296	.5282	.5268	.5254	.5240	.5227	.5213	.5199	.5185

AC - 227

HALF-LIFE 21.60 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
7500.0	.5172	.5158	.5144	.5131	.5117	.5104	.5090	.5077	.5064	.5050
7800.0	.5037	.5024	.5011	.4997	.4984	.4971	.4958	.4945	.4932	.4919
8100.0	.4906	.4893	.4880	.4867	.4854	.4842	.4829	.4816	.4804	.4791
8400.0	.4778	.4766	.4753	.4741	.4728	.4716	.4703	.4691	.4678	.4666
8700.0	.4654	.4642	.4629	.4617	.4605	.4593	.4581	.4569	.4557	.4545
9000.0	.4533	.4521	.4509	.4497	.4485	.4473	.4462	.4450	.4438	.4426
9300.0	.4415	.4403	.4391	.4380	.4368	.4357	.4345	.4334	.4323	.4311
9600.0	.4300	.4288	.4277	.4266	.4255	.4243	.4232	.4221	.4210	.4199
9900.0	.4188	.4177	.4166	.4155	.4144	.4133	.4122	.4111	.4100	.4090
10200.0	.4079	.4068	.4057	.4047	.4036	.4025	.4015	.4004	.3994	.3983
10500.0	.3973	.3962	.3952	.3941	.3931	.3921	.3910	.3900	.3890	.3879
10800.0	.3869	.3859	.3849	.3839	.3829	.3819	.3809	.3798	.3788	.3779
11100.0	.3769	.3759	.3749	.3739	.3729	.3719	.3709	.3700	.3690	.3680
11400.0	.3670	.3661	.3651	.3642	.3632	.3622	.3613	.3603	.3594	.3584
11700.0	.3575	.3566	.3556	.3547	.3537	.3528	.3519	.3510	.3500	.3491
12000.0	.3482	.3473	.3464	.3454	.3445	.3436	.3427	.3418	.3409	.3400
12300.0	.3391	.3382	.3373	.3364	.3356	.3347	.3338	.3329	.3320	.3312
12600.0	.3303	.3294	.3286	.3277	.3268	.3260	.3251	.3243	.3234	.3225
12900.0	.3217	.3208	.3200	.3192	.3183	.3175	.3166	.3158	.3150	.3142
13200.0	.3133	.3125	.3117	.3109	.3100	.3092	.3084	.3076	.3068	.3060
13500.0	.3052	.3044	.3036	.3028	.3020	.3012	.3004	.2996	.2988	.2980
13800.0	.2972	.2964	.2957	.2949	.2941	.2933	.2926	.2918	.2910	.2903
14100.0	.2895	.2887	.2880	.2872	.2864	.2857	.2849	.2842	.2834	.2827
14400.0	.2820	.2812	.2805	.2797	.2790	.2783	.2775	.2768	.2761	.2753
14700.0	.2746	.2739	.2732	.2724	.2717	.2710	.2703	.2696	.2689	.2682
15000.0	.2675	.2668	.2661	.2654	.2647	.2640	.2633	.2626	.2619	.2612
15300.0	.2605	.2598	.2591	.2584	.2578	.2571	.2564	.2557	.2551	.2544
15600.0	.2537	.2531	.2524	.2517	.2511	.2504	.2497	.2491	.2484	.2478
15900.0	.2471	.2465	.2458	.2452	.2445	.2439	.2432	.2426	.2420	.2413
16200.0	.2407	.2400	.2394	.2388	.2382	.2375	.2369	.2363	.2357	.2350
16500.0	.2344	.2338	.2332	.2326	.2320	.2313	.2307	.2301	.2295	.2289
16800.0	.2283	.2277	.2271	.2265	.2259	.2253	.2247	.2241	.2235	.2230
17100.0	.2224	.2218	.2212	.2206	.2200	.2195	.2189	.2183	.2177	.2172
17400.0	.2166	.2160	.2154	.2149	.2143	.2137	.2132	.2126	.2121	.2115
17700.0	.2109	.2104	.2098	.2093	.2087	.2082	.2076	.2071	.2065	.2060
18000.0	.2055	.2049	.2044	.2038	.2033	.2028	.2022	.2017	.2012	.2006
18300.0	.2001	.1996	.1991	.1985	.1980	.1975	.1970	.1964	.1959	.1954
18600.0	.1949	.1944	.1939	.1934	.1929	.1923	.1918	.1913	.1908	.1903
18900.0	.1898	.1893	.1888	.1883	.1878	.1873	.1868	.1864	.1859	.1854
19200.0	.1849	.1844	.1839	.1834	.1829	.1825	.1820	.1815	.1810	.1805
19500.0	.1801	.1796	.1791	.1787	.1782	.1777	.1772	.1768	.1763	.1758
19800.0	.1754	.1749	.1745	.1740	.1735	.1731	.1726	.1722	.1717	.1713
20100.0	.1708	.1704	.1699	.1695	.1690	.1686	.1681	.1677	.1673	.1668
20400.0	.1664	.1659	.1655	.1651	.1646	.1642	.1638	.1633	.1629	.1625
20700.0	.1620	.1616	.1612	.1608	.1603	.1599	.1595	.1591	.1587	.1582
21000.0	.1578	.1574	.1570	.1566	.1562	.1556	.1553	.1549	.1545	.1541
21300.0	.1537	.1533	.1529	.1525	.1521	.1517	.1513	.1509	.1505	.1501
21600.0	.1497	.1493	.1489	.1485	.1481	.1478	.1474	.1470	.1466	.1462
21900.0	.1458	.1454	.1450	.1447	.1443	.1439	.1435	.1431	.1428	.1424
22200.0	.1420	.1416	.1413	.1409	.1405	.1402	.1398	.1394	.1391	.1387
22500.0	.1383	.1380	.1376	.1372	.1369	.1365	.1362	.1358	.1354	.1351
22800.0	.1347	.1344	.1340	.1337	.1333	.1330	.1326	.1323	.1319	.1316
23100.0	.1312	.1309	.1305	.1302	.1298	.1295	.1292	.1288	.1285	.1281
23400.0	.1278	.1275	.1271	.1268	.1265	.1261	.1258	.1255	.1251	.1248
23700.0	.1245	.1241	.1238	.1235	.1232	.1228	.1225	.1222	.1219	.1216

AC - 227

HALF-LIFE 21.60 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
24000.0	.1212	.1209	.1206	.1203	.1200	.1196	.1193	.1190	.1187	.1184
24300.0	.1181	.1178	.1175	.1171	.1168	.1165	.1162	.1159	.1156	.1153
24600.0	.1150	.1147	.1144	.1141	.1138	.1135	.1132	.1129	.1126	.1123
24900.0	.1120	.1117	.1114	.1111	.1108	.1105	.1103	.1100	.1097	.1094
25200.0	.1091	.1088	.1085	.1082	.1079	.1077	.1074	.1071	.1068	.1065
25500.0	.1063	.1060	.1057	.1054	.1051	.1049	.1046	.1043	.1040	.1038
25800.0	.1035	.1032	.1029	.1027	.1024	.1021	.1019	.1016	.1013	.1011
26100.0	.1008	.1005	.1003	.1000	.0997	.0995	.0992	.0990	.0987	.0984
26400.0	.0982	.0979	.0977	.0974	.0971	.0969	.0966	.0964	.0961	.0959
26700.0	.0956	.0954	.0951	.0949	.0946	.0944	.0941	.0939	.0936	.0934
27000.0	.0931	.0929	.0926	.0924	.0921	.0919	.0917	.0914	.0912	.0909
27300.0	.0907	.0905	.0902	.0900	.0898	.0895	.0893	.0890	.0888	.0886
27600.0	.0883	.0881	.0879	.0876	.0874	.0872	.0870	.0867	.0865	.0863
27900.0	.0860	.0858	.0856	.0854	.0851	.0849	.0847	.0845	.0842	.0840
28200.0	.0838	.0836	.0834	.0831	.0829	.0827	.0825	.0823	.0821	.0818
28500.0	.0816	.0814	.0812	.0810	.0808	.0806	.0803	.0801	.0799	.0797

AC - 227

HALF-LIFE 21.60 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9684	.9378	.9082	.8795	.8518	.8249	.7988	.7736	.7492
10.0	.7255	.7026	.6804	.6589	.6381	.6179	.5984	.5795	.5612	.5435
20.0	.5263	.5097	.4936	.4780	.4629	.4483	.4342	.4204	.4072	.3943
30.0	.3819	.3698	.3581	.3468	.3359	.3253	.3150	.3050	.2954	.2861
40.0	.2770	.2683	.2598	.2516	.2437	.2360	.2285	.2213	.2143	.2075
50.0	.2010	.1946	.1885	.1825	.1768	.1712	.1658	.1606	.1555	.1506
60.0	.1458	.1412	.1368	.1324	.1283	.1242	.1203	.1165	.1128	.1092
70.0	.1058	.1024	.0992	.0961	.0930	.0901	.0873	.0845	.0818	.0793

AC - 228

HALF-LIFE 6.13 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9906	.9813	.9721	.9630	.9540	.9450	.9362	.9274	.9187	.9101	.9015
1.00	.8931	.8847	.8764	.8682	.8600	.8520	.8440	.8361	.8282	.8205	.8128	.8052
2.00	.7976	.7901	.7827	.7754	.7681	.7609	.7538	.7467	.7397	.7327	.7259	.7191
3.00	.7123	.7056	.6990	.6925	.6860	.6795	.6732	.6669	.6606	.6544	.6483	.6422
4.00	.6362	.6302	.6243	.6184	.6126	.6069	.6012	.5956	.5900	.5844	.5790	.5735
5.00	.5681	.5628	.5575	.5523	.5471	.5420	.5369	.5319	.5269	.5220	.5171	.5122
6.00	.5074	.5026	.4979	.4933	.4886	.4841	.4795	.4750	.4706	.4661	.4618	.4574
7.00	.4532	.4489	.4447	.4405	.4364	.4323	.4282	.4242	.4203	.4163	.4124	.4085
8.00	.4047	.4009	.3971	.3934	.3897	.3861	.3825	.3789	.3753	.3718	.3683	.3649
9.00	.3614	.3580	.3547	.3514	.3481	.3448	.3416	.3384	.3352	.3320	.3289	.3258
10.00	.3228	.3198	.3168	.3138	.3109	.3079	.3050	.3022	.2994	.2965	.2938	.2910
11.00	.2883	.2856	.2829	.2802	.2776	.2750	.2724	.2699	.2673	.2648	.2624	.2599
12.00	.2575	.2550	.2527	.2503	.2479	.2456	.2433	.2410	.2388	.2365	.2343	.2321
13.00	.2299	.2278	.2256	.2235	.2214	.2194	.2173	.2153	.2132	.2112	.2093	.2073
14.00	.2053	.2034	.2015	.1996	.1978	.1959	.1941	.1922	.1904	.1887	.1869	.1851
15.00	.1834	.1817	.1800	.1783	.1766	.1750	.1733	.1717	.1701	.1685	.1669	.1653
16.00	.1638	.1623	.1607	.1592	.1577	.1562	.1548	.1533	.1519	.1505	.1491	.1477
17.00	.1463	.1449	.1435	.1422	.1409	.1395	.1382	.1369	.1357	.1344	.1331	.1319
18.00	.1306	.1294	.1282	.1270	.1258	.1246	.1235	.1223	.1212	.1200	.1189	.1178
19.00	.1167	.1156	.1145	.1134	.1124	.1113	.1103	.1092	.1082	.1072	.1062	.1052

AC - 228

HALF-LIFE 6.13 HOURS CALCULATION INTERVAL 5.0 MINUTES

HOURS	MINUTES 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
20.00	.1042	.1032	.1022	.1013	.1003	.0994	.0985	.0975	.0966	.0957	.0948	.0939
21.00	.0931	.0922	.0913	.0905	.0896	.0888	.0879	.0871	.0863	.0855	.0847	.0839
22.00	.0831	.0823	.0816	.0808	.0800	.0793	.0785	.0778	.0771	.0763	.0756	.0749

TH - 227

HALF-LIFE 18.20 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
0.00	1.0000	.9968	.9937	.9905	.9874	.9843	.9811	.9780	.9749	.9718	.9688	.9657
1.00	.9626	.9596	.9565	.9535	.9505	.9475	.9445	.9415	.9385	.9355	.9326	.9296
2.00	.9267	.9237	.9208	.9179	.9150	.9121	.9092	.9063	.9034	.9006	.8977	.8949
3.00	.8920	.8892	.8864	.8836	.8808	.8780	.8752	.8724	.8697	.8669	.8642	.8614
4.00	.8587	.8560	.8533	.8506	.8479	.8452	.8425	.8398	.8372	.8345	.8319	.8292
5.00	.8266	.8240	.8214	.8188	.8162	.8136	.8110	.8084	.8059	.8033	.8008	.7982
6.00	.7957	.7932	.7907	.7882	.7857	.7832	.7807	.7782	.7758	.7733	.7709	.7684
7.00	.7660	.7636	.7611	.7587	.7563	.7539	.7515	.7492	.7468	.7444	.7421	.7397
8.00	.7374	.7350	.7327	.7304	.7281	.7258	.7235	.7212	.7189	.7166	.7143	.7121
9.00	.7098	.7076	.7053	.7031	.7009	.6986	.6964	.6942	.6920	.6898	.6876	.6855
10.00	.6833	.6811	.6790	.6768	.6747	.6725	.6704	.6683	.6662	.6640	.6619	.6598
11.00	.6577	.6557	.6536	.6515	.6494	.6474	.6453	.6433	.6413	.6392	.6372	.6352
12.00	.6332	.6312	.6292	.6272	.6252	.6232	.6212	.6193	.6173	.6153	.6134	.6114
13.00	.6095	.6076	.6057	.6037	.6018	.5999	.5980	.5961	.5942	.5923	.5905	.5886
14.00	.5867	.5849	.5830	.5812	.5793	.5775	.5757	.5738	.5720	.5702	.5684	.5666
15.00	.5648	.5630	.5612	.5595	.5577	.5559	.5542	.5524	.5506	.5489	.5472	.5454
16.00	.5437	.5420	.5403	.5385	.5368	.5351	.5334	.5318	.5301	.5284	.5267	.5250
17.00	.5234	.5217	.5201	.5184	.5168	.5151	.5135	.5119	.5103	.5086	.5070	.5054
18.00	.5038	.5022	.5006	.4990	.4975	.4959	.4943	.4928	.4912	.4896	.4881	.4865
19.00	.4850	.4835	.4819	.4804	.4789	.4774	.4758	.4743	.4728	.4713	.4698	.4684
20.00	.4669	.4654	.4639	.4624	.4610	.4595	.4581	.4566	.4552	.4537	.4523	.4509
21.00	.4494	.4480	.4466	.4452	.4438	.4423	.4409	.4396	.4382	.4368	.4354	.4340
22.00	.4326	.4313	.4299	.4285	.4272	.4258	.4245	.4231	.4218	.4204	.4191	.4178
23.00	.4165	.4151	.4138	.4125	.4112	.4099	.4086	.4073	.4060	.4047	.4035	.4022
24.00	.4009	.3996	.3984	.3971	.3958	.3946	.3933	.3921	.3909	.3896	.3884	.3871
25.00	.3859	.3847	.3835	.3823	.3811	.3798	.3786	.3774	.3762	.3751	.3739	.3727
26.00	.3715	.3703	.3691	.3680	.3668	.3656	.3645	.3633	.3622	.3610	.3599	.3588
27.00	.3576	.3565	.3554	.3542	.3531	.3520	.3509	.3498	.3487	.3475	.3464	.3453
28.00	.3443	.3432	.3421	.3410	.3399	.3388	.3378	.3367	.3356	.3346	.3335	.3324
29.00	.3314	.3303	.3293	.3282	.3272	.3262	.3251	.3241	.3231	.3221	.3210	.3200
30.00	.3190	.3180	.3170	.3160	.3150	.3140	.3130	.3120	.3110	.3100	.3090	.3081
31.00	.3071	.3061	.3051	.3042	.3032	.3022	.3013	.3003	.2994	.2984	.2975	.2965
32.00	.2956	.2947	.2937	.2928	.2919	.2910	.2900	.2891	.2882	.2873	.2864	.2855
33.00	.2846	.2837	.2828	.2819	.2810	.2801	.2792	.2783	.2774	.2765	.2757	.2748
34.00	.2739	.2731	.2722	.2713	.2705	.2696	.2688	.2679	.2671	.2662	.2654	.2645
35.00	.2637	.2629	.2620	.2612	.2604	.2595	.2587	.2579	.2571	.2563	.2555	.2546
36.00	.2538	.2530	.2522	.2514	.2506	.2498	.2490	.2483	.2475	.2467	.2459	.2451
37.00	.2444	.2436	.2428	.2420	.2413	.2405	.2397	.2390	.2382	.2375	.2367	.2360
38.00	.2352	.2345	.2337	.2330	.2323	.2315	.2308	.2301	.2293	.2286	.2279	.2272
39.00	.2264	.2257	.2250	.2243	.2236	.2229	.2222	.2215	.2208	.2201	.2194	.2187
40.00	.2180	.2173	.2166	.2159	.2152	.2145	.2139	.2132	.2125	.2118	.2112	.2105
41.00	.2098	.2092	.2085	.2078	.2072	.2065	.2059	.2052	.2046	.2039	.2033	.2026
42.00	.2020	.2013	.2007	.2001	.1994	.1988	.1982	.1975	.1969	.1963	.1957	.1951
43.00	.1944	.1938	.1932	.1926	.1920	.1914	.1908	.1902	.1896	.1890	.1884	.1878
44.00	.1872	.1866	.1860	.1854	.1848	.1842	.1836	.1831	.1825	.1819	.1813	.1807

TH - 227

HALF-LIFE 18.20 DAYS CALCULATION INTERVAL 2.0 HOURS

DAYS	HOURS 0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
45.00	.1802	.1796	.1790	.1785	.1779	.1773	.1768	.1762	.1757	.1751	.1745	.1740
46.00	.1734	.1729	.1723	.1718	.1713	.1707	.1702	.1696	.1691	.1686	.1680	.1675
47.00	.1670	.1664	.1659	.1654	.1649	.1643	.1638	.1633	.1628	.1623	.1617	.1612
48.00	.1607	.1602	.1597	.1592	.1587	.1582	.1577	.1572	.1567	.1562	.1557	.1552
49.00	.1547	.1542	.1537	.1532	.1528	.1523	.1518	.1513	.1508	.1504	.1499	.1494
50.00	.1489	.1485	.1480	.1475	.1471	.1466	.1461	.1457	.1452	.1447	.1443	.1438
51.00	.1434	.1429	.1425	.1420	.1416	.1411	.1407	.1402	.1398	.1393	.1389	.1384
52.00	.1380	.1376	.1371	.1367	.1363	.1358	.1354	.1350	.1346	.1341	.1337	.1333
53.00	.1329	.1324	.1320	.1316	.1312	.1308	.1303	.1299	.1295	.1291	.1287	.1283
54.00	.1279	.1275	.1271	.1267	.1263	.1259	.1255	.1251	.1247	.1243	.1239	.1235
55.00	.1231	.1227	.1223	.1219	.1216	.1212	.1208	.1204	.1200	.1196	.1193	.1189
56.00	.1185	.1181	.1178	.1174	.1170	.1166	.1163	.1159	.1155	.1152	.1148	.1144
57.00	.1141	.1137	.1134	.1130	.1126	.1123	.1119	.1116	.1112	.1109	.1105	.1102
58.00	.1098	.1095	.1091	.1088	.1084	.1081	.1077	.1074	.1071	.1067	.1064	.1061
59.00	.1057	.1054	.1050	.1047	.1044	.1040	.1037	.1034	.1031	.1027	.1024	.1021
60.00	.1018	.1014	.1011	.1008	.1005	.1002	.0998	.0995	.0992	.0989	.0986	.0983
61.00	.0980	.0977	.0973	.0970	.0967	.0964	.0961	.0958	.0955	.0952	.0949	.0946
62.00	.0943	.0940	.0937	.0934	.0931	.0928	.0925	.0922	.0919	.0916	.0914	.0911
63.00	.0908	.0905	.0902	.0899	.0896	.0893	.0891	.0888	.0885	.0882	.0879	.0877
64.00	.0874	.0871	.0868	.0866	.0863	.0860	.0857	.0855	.0852	.0849	.0847	.0844
65.00	.0841	.0839	.0836	.0833	.0831	.0828	.0825	.0823	.0820	.0818	.0815	.0812
66.00	.0810	.0807	.0805	.0802	.0800	.0797	.0794	.0792	.0789	.0787	.0784	.0782

TH - 228

HALF-LIFE 1.91 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	DAYS 0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
0.0	1.0000	.9950	.9901	.9852	.9803	.9754	.9706	.9658	.9610	.9562
50.0	.9515	.9468	.9421	.9374	.9328	.9281	.9235	.9190	.9144	.9099
100.0	.9054	.9009	.8964	.8920	.8875	.8831	.8788	.8744	.8701	.8657
150.0	.8614	.8572	.8529	.8487	.8445	.8403	.8361	.8320	.8279	.8238
200.0	.8197	.8156	.8116	.8075	.8035	.7995	.7956	.7916	.7877	.7838
250.0	.7799	.7761	.7722	.7684	.7646	.7608	.7570	.7532	.7495	.7458
300.0	.7421	.7384	.7348	.7311	.7275	.7239	.7203	.7167	.7132	.7096
350.0	.7061	.7026	.6991	.6957	.6922	.6888	.6854	.6820	.6786	.6752
400.0	.6719	.6685	.6652	.6619	.6586	.6554	.6521	.6489	.6457	.6425
450.0	.6393	.6361	.6330	.6298	.6267	.6236	.6205	.6174	.6144	.6113
500.0	.6083	.6053	.6023	.5993	.5963	.5933	.5904	.5875	.5846	.5817
550.0	.5788	.5759	.5730	.5702	.5674	.5646	.5618	.5590	.5562	.5535
600.0	.5507	.5480	.5453	.5426	.5399	.5372	.5345	.5319	.5292	.5266
650.0	.5240	.5214	.5188	.5162	.5137	.5111	.5086	.5061	.5036	.5011
700.0	.4986	.4961	.4937	.4912	.4888	.4863	.4839	.4815	.4791	.4768
750.0	.4744	.4721	.4697	.4674	.4651	.4628	.4605	.4582	.4559	.4536
800.0	.4514	.4492	.4469	.4447	.4425	.4403	.4381	.4360	.4338	.4316
850.0	.4295	.4274	.4253	.4231	.4210	.4190	.4169	.4148	.4128	.4107
900.0	.4087	.4066	.4046	.4026	.4006	.3986	.3967	.3947	.3927	.3908
950.0	.3889	.3869	.3850	.3831	.3812	.3793	.3774	.3756	.3737	.3718
1000.0	.3700	.3682	.3663	.3645	.3627	.3609	.3591	.3573	.3556	.3538
1050.0	.3521	.3503	.3486	.3468	.3451	.3434	.3417	.3400	.3383	.3366
1100.0	.3350	.3333	.3317	.3300	.3284	.3268	.3251	.3235	.3219	.3203
1150.0	.3187	.3172	.3156	.3140	.3125	.3109	.3094	.3078	.3063	.3048
1200.0	.3033	.3018	.3003	.2988	.2973	.2958	.2944	.2929	.2915	.2900

TH - 228

HALF-LIFE 1.91 YEARS CALCULATION INTERVAL 5.0 DAYS

DAYS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
1250.0	.2886	.2871	.2857	.2843	.2829	.2815	.2801	.2787	.2773	.2759
1300.0	.2746	.2732	.2719	.2705	.2692	.2678	.2665	.2652	.2639	.2626
1350.0	.2613	.2600	.2587	.2574	.2561	.2548	.2536	.2523	.2511	.2498
1400.0	.2486	.2474	.2461	.2449	.2437	.2425	.2413	.2401	.2389	.2377
1450.0	.2365	.2354	.2342	.2330	.2319	.2307	.2296	.2284	.2273	.2262
1500.0	.2251	.2239	.2228	.2217	.2206	.2195	.2184	.2174	.2163	.2152
1550.0	.2141	.2131	.2120	.2110	.2099	.2089	.2079	.2068	.2058	.2048
1600.0	.2038	.2027	.2017	.2007	.1997	.1988	.1978	.1968	.1958	.1948
1650.0	.1939	.1929	.1920	.1910	.1901	.1891	.1882	.1872	.1863	.1854
1700.0	.1845	.1836	.1827	.1817	.1808	.1799	.1791	.1782	.1773	.1764
1750.0	.1755	.1747	.1738	.1729	.1721	.1712	.1704	.1695	.1687	.1678
1800.0	.1670	.1662	.1654	.1645	.1637	.1629	.1621	.1613	.1605	.1597
1850.0	.1589	.1581	.1573	.1566	.1558	.1550	.1542	.1535	.1527	.1520
1900.0	.1512	.1505	.1497	.1490	.1482	.1475	.1468	.1460	.1453	.1446
1950.0	.1439	.1432	.1425	.1417	.1410	.1403	.1396	.1390	.1383	.1376
2000.0	.1369	.1362	.1355	.1349	.1342	.1335	.1329	.1322	.1316	.1309
2050.0	.1303	.1296	.1290	.1283	.1277	.1271	.1264	.1258	.1252	.1246
2100.0	.1239	.1233	.1227	.1221	.1215	.1209	.1203	.1197	.1191	.1185
2150.0	.1179	.1173	.1168	.1162	.1156	.1150	.1145	.1139	.1133	.1128
2200.0	.1122	.1117	.1111	.1106	.1100	.1095	.1089	.1084	.1078	.1073
2250.0	.1068	.1062	.1057	.1052	.1047	.1041	.1036	.1031	.1026	.1021
2300.0	.1016	.1011	.1006	.1001	.0996	.0991	.0986	.0981	.0976	.0971
2350.0	.0967	.0962	.0957	.0952	.0948	.0943	.0938	.0934	.0929	.0924
2400.0	.0920	.0915	.0911	.0906	.0902	.0897	.0893	.0888	.0884	.0880
2450.0	.0875	.0871	.0867	.0862	.0858	.0854	.0849	.0845	.0841	.0837
2500.0	.0833	.0829	.0824	.0820	.0816	.0812	.0808	.0804	.0800	.0796

TH - 229

HALF-LIFE 7340.00 YEARS CALCULATION INTERVAL 50.0 YEARS

YEARS	0.0	50.0	100.0	150.0	200.0	250.0	300.0	350.0	400.0	450.0
0.0	1.0000	.9953	.9906	.9859	.9813	.9767	.9721	.9675	.9629	.9584
500.0	.9539	.9494	.9449	.9405	.9360	.9316	.9272	.9229	.9185	.9142
1000.0	.9099	.9056	.9013	.8971	.8929	.8887	.8845	.8803	.8762	.8720
1500.0	.8679	.8638	.8598	.8557	.8517	.8477	.8437	.8397	.8358	.8318
2000.0	.8279	.8240	.8201	.8163	.8124	.8086	.8048	.8010	.7972	.7935
2500.0	.7897	.7860	.7823	.7786	.7749	.7713	.7677	.7640	.7604	.7569
3000.0	.7533	.7497	.7462	.7427	.7392	.7357	.7323	.7288	.7254	.7220
3500.0	.7186	.7152	.7118	.7084	.7051	.7018	.6985	.6952	.6919	.6887
4000.0	.6854	.6822	.6790	.6758	.6726	.6694	.6663	.6631	.6600	.6569
4500.0	.6538	.6507	.6477	.6446	.6416	.6385	.6355	.6325	.6296	.6266
5000.0	.6236	.6207	.6178	.6149	.6120	.6091	.6062	.6034	.6005	.5977
5500.0	.5949	.5921	.5893	.5865	.5838	.5810	.5783	.5755	.5728	.5701
6000.0	.5674	.5648	.5621	.5595	.5568	.5542	.5516	.5490	.5464	.5438
6500.0	.5413	.5387	.5362	.5337	.5312	.5286	.5262	.5237	.5212	.5188
7000.0	.5163	.5139	.5115	.5091	.5067	.5043	.5019	.4995	.4972	.4948
7500.0	.4925	.4902	.4879	.4856	.4833	.4810	.4787	.4765	.4742	.4720
8000.0	.4698	.4676	.4654	.4632	.4610	.4588	.4567	.4545	.4524	.4502
8500.0	.4481	.4460	.4439	.4418	.4397	.4377	.4356	.4336	.4315	.4295
9000.0	.4275	.4254	.4234	.4214	.4195	.4175	.4155	.4136	.4116	.4097
9500.0	.4077	.4058	.4039	.4020	.4001	.3982	.3964	.3945	.3926	.3908

TH - 229

HALF-LIFE 7340.00 YEARS CALCULATION INTERVAL 50.0 YEARS

YEARS	0.0	50.0	100.0	150.0	200.0	250.0	300.0	350.0	400.0	450.0
10000.0	.3889	.3871	.3853	.3835	.3817	.3799	.3781	.3763	.3745	.3728
10500.0	.3710	.3693	.3675	.3658	.3641	.3623	.3606	.3589	.3572	.3556
11000.0	.3539	.3522	.3506	.3489	.3473	.3456	.3440	.3424	.3408	.3392
11500.0	.3376	.3360	.3344	.3328	.3313	.3297	.3281	.3266	.3251	.3235
12000.0	.3220	.3205	.3190	.3175	.3160	.3145	.3130	.3115	.3101	.3086
12500.0	.3071	.3057	.3043	.3028	.3014	.3000	.2986	.2972	.2958	.2944
13000.0	.2930	.2916	.2902	.2889	.2875	.2861	.2848	.2835	.2821	.2808
13500.0	.2795	.2782	.2768	.2755	.2742	.2729	.2717	.2704	.2691	.2678
14000.0	.2666	.2653	.2641	.2628	.2616	.2604	.2591	.2579	.2567	.2555
14500.0	.2543	.2531	.2519	.2507	.2495	.2484	.2472	.2460	.2449	.2437
15000.0	.2426	.2414	.2403	.2391	.2380	.2369	.2358	.2347	.2336	.2325
15500.0	.2314	.2303	.2292	.2281	.2270	.2260	.2249	.2238	.2228	.2217
16000.0	.2207	.2197	.2186	.2176	.2166	.2156	.2145	.2135	.2125	.2115
16500.0	.2105	.2095	.2085	.2076	.2066	.2056	.2046	.2037	.2027	.2018
17000.0	.2008	.1999	.1989	.1980	.1971	.1961	.1952	.1943	.1934	.1925

TH - 231

HALF-LIFE 25.52 HOURS CALCULATION INTERVAL 30.0 MINUTES

HOURS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0	300.0	330.0
0.00	1.0000	.9865	.9732	.9601	.9471	.9344	.9217	.9093	.8970	.8849	.8730	.8612
6.00	.8496	.8382	.8269	.8157	.8047	.7938	.7831	.7726	.7622	.7519	.7417	.7317
12.00	.7219	.7121	.7025	.6930	.6837	.6745	.6654	.6564	.6475	.6388	.6302	.6217
18.00	.6133	.6050	.5969	.5888	.5809	.5730	.5653	.5577	.5502	.5427	.5354	.5282
24.00	.5211	.5140	.5071	.5003	.4935	.4869	.4803	.4738	.4674	.4611	.4549	.4488
30.00	.4427	.4367	.4309	.4250	.4193	.4137	.4081	.4026	.3971	.3918	.3865	.3813
36.00	.3761	.3711	.3661	.3611	.3563	.3514	.3467	.3420	.3374	.3329	.3284	.3239
42.00	.3196	.3153	.3110	.3068	.3027	.2986	.2946	.2906	.2867	.2828	.2790	.2752
48.00	.2715	.2679	.2642	.2607	.2572	.2537	.2503	.2469	.2436	.2403	.2370	.2338
54.00	.2307	.2276	.2245	.2215	.2185	.2155	.2126	.2098	.2069	.2041	.2014	.1987
60.00	.1960	.1934	.1907	.1882	.1856	.1831	.1807	.1782	.1758	.1734	.1711	.1688
66.00	.1665	.1643	.1621	.1599	.1577	.1556	.1535	.1514	.1494	.1474	.1454	.1434
72.00	.1415	.1396	.1377	.1358	.1340	.1322	.1304	.1287	.1269	.1252	.1235	.1218
78.00	.1202	.1186	.1170	.1154	.1138	.1123	.1108	.1093	.1078	.1064	.1049	.1035
84.00	.1021	.1008	.0994	.0981	.0967	.0954	.0941	.0929	.0916	.0904	.0892	.0880
90.00	.0868	.0856	.0844	.0833	.0822	.0811	.0800	.0789	.0778	.0768	.0758	.0747

TH - 234

HALF-LIFE 24.10 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
0.00	1.0000	.9928	.9857	.9787	.9716	.9647	.9578	.9509	.9441	.9373	.9306	.9240
3.00	.9173	.9108	.9042	.8978	.8913	.8849	.8786	.8723	.8661	.8599	.8537	.8476
6.00	.8415	.8355	.8295	.8235	.8176	.8118	.8060	.8002	.7945	.7888	.7831	.7775
9.00	.7719	.7664	.7609	.7555	.7501	.7447	.7393	.7340	.7288	.7236	.7184	.7132
12.00	.7081	.7031	.6980	.6930	.6880	.6831	.6782	.6734	.6685	.6638	.6590	.6543
15.00	.6496	.6449	.6403	.6357	.6312	.6266	.6222	.6177	.6133	.6089	.6045	.6002
18.00	.5959	.5916	.5874	.5832	.5790	.5748	.5707	.5666	.5626	.5585	.5545	.5506
21.00	.5466	.5427	.5388	.5350	.5311	.5273	.5235	.5198	.5161	.5124	.5087	.5051
24.00	.5014	.4978	.4943	.4907	.4872	.4837	.4803	.4768	.4734	.4700	.4667	.4633
27.00	.4600	.4567	.4534	.4502	.4469	.4437	.4406	.4374	.4343	.4312	.4281	.4250

TH - 234

HALF-LIFE 24.10 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
	HOURS											
30.00	.4220	.4189	.4159	.4130	.4100	.4071	.4041	.4012	.3984	.3955	.3927	.3899
33.00	.3871	.3843	.3816	.3788	.3761	.3734	.3707	.3681	.3654	.3628	.3602	.3576
36.00	.3551	.3525	.3500	.3475	.3450	.3425	.3401	.3377	.3352	.3328	.3304	.3281
39.00	.3257	.3234	.3211	.3188	.3165	.3142	.3120	.3097	.3075	.3053	.3031	.3010
42.00	.2988	.2967	.2945	.2924	.2903	.2883	.2862	.2841	.2821	.2801	.2781	.2761
45.00	.2741	.2721	.2702	.2683	.2663	.2644	.2625	.2606	.2588	.2569	.2551	.2533
48.00	.2514	.2496	.2479	.2461	.2443	.2426	.2408	.2391	.2374	.2357	.2340	.2323
51.00	.2307	.2290	.2274	.2257	.2241	.2225	.2209	.2193	.2178	.2162	.2147	.2131
54.00	.2116	.2101	.2086	.2071	.2056	.2041	.2027	.2012	.1998	.1983	.1969	.1955
57.00	.1941	.1927	.1913	.1900	.1886	.1872	.1859	.1846	.1832	.1819	.1806	.1793
60.00	.1781	.1768	.1755	.1743	.1730	.1718	.1705	.1693	.1681	.1669	.1657	.1645
63.00	.1633	.1622	.1610	.1598	.1587	.1576	.1564	.1553	.1542	.1531	.1520	.1509
66.00	.1498	.1488	.1477	.1466	.1456	.1445	.1435	.1425	.1415	.1404	.1394	.1384
69.00	.1374	.1365	.1355	.1345	.1335	.1326	.1316	.1307	.1298	.1288	.1279	.1270
72.00	.1261	.1252	.1243	.1234	.1225	.1216	.1208	.1199	.1190	.1182	.1173	.1165
75.00	.1157	.1148	.1140	.1132	.1124	.1116	.1108	.1100	.1092	.1084	.1076	.1069
78.00	.1061	.1053	.1046	.1038	.1031	.1024	.1016	.1009	.1002	.0995	.0987	.0980
81.00	.0973	.0966	.0959	.0953	.0946	.0939	.0932	.0926	.0919	.0912	.0906	.0899
84.00	.0893	.0886	.0880	.0874	.0868	.0861	.0855	.0849	.0843	.0837	.0831	.0825
87.00	.0819	.0813	.0807	.0802	.0796	.0790	.0784	.0779	.0773	.0768	.0762	.0757

PA - 233

HALF-LIFE 27.00 DAYS CALCULATION INTERVAL 6.0 HOURS

DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
	HOURS											
0.00	1.0000	.9936	.9872	.9809	.9747	.9684	.9622	.9561	.9500	.9439	.9378	.9318
3.00	.9259	.9200	.9141	.9082	.9024	.8966	.8909	.8852	.8795	.8739	.8683	.8628
6.00	.8572	.8518	.8463	.8409	.8355	.8302	.8249	.8196	.8143	.8091	.8040	.7988
9.00	.7937	.7886	.7836	.7786	.7736	.7686	.7637	.7588	.7540	.7492	.7444	.7396
12.00	.7349	.7302	.7255	.7209	.7162	.7117	.7071	.7026	.6981	.6936	.6892	.6848
15.00	.6804	.6760	.6717	.6674	.6632	.6589	.6547	.6505	.6463	.6422	.6381	.6340
18.00	.6300	.6259	.6219	.6179	.6140	.6101	.6062	.6023	.5984	.5946	.5908	.5870
21.00	.5833	.5795	.5758	.5721	.5685	.5648	.5612	.5576	.5541	.5505	.5470	.5435
24.00	.5400	.5366	.5331	.5297	.5263	.5230	.5196	.5163	.5130	.5097	.5065	.5032
27.00	.5000	.4968	.4936	.4905	.4873	.4842	.4811	.4780	.4750	.4719	.4689	.4659
30.00	.4629	.4600	.4570	.4541	.4512	.4483	.4454	.4426	.4398	.4370	.4342	.4314
33.00	.4286	.4259	.4232	.4204	.4178	.4151	.4124	.4098	.4072	.4046	.4020	.3994
36.00	.3969	.3943	.3918	.3893	.3868	.3843	.3819	.3794	.3770	.3746	.3722	.3698
39.00	.3674	.3651	.3627	.3604	.3581	.3558	.3536	.3513	.3490	.3468	.3446	.3424
42.00	.3402	.3380	.3359	.3337	.3316	.3295	.3273	.3253	.3232	.3211	.3190	.3170
45.00	.3150	.3130	.3110	.3090	.3070	.3050	.3031	.3011	.2992	.2973	.2954	.2935
48.00	.2916	.2898	.2879	.2861	.2842	.2824	.2806	.2788	.2770	.2753	.2735	.2718
51.00	.2700	.2683	.2666	.2649	.2632	.2615	.2598	.2582	.2565	.2549	.2532	.2516
54.00	.2500	.2484	.2468	.2452	.2437	.2421	.2406	.2390	.2375	.2360	.2345	.2330
57.00	.2315	.2300	.2285	.2271	.2256	.2242	.2227	.2213	.2199	.2185	.2171	.2157
60.00	.2143	.2129	.2116	.2102	.2089	.2075	.2062	.2049	.2036	.2023	.2010	.1997
63.00	.1984	.1972	.1959	.1946	.1934	.1922	.1909	.1897	.1885	.1873	.1861	.1849
66.00	.1837	.1825	.1814	.1802	.1791	.1779	.1768	.1756	.1745	.1734	.1723	.1712
69.00	.1701	.1690	.1679	.1669	.1658	.1647	.1637	.1626	.1616	.1606	.1595	.1585
72.00	.1575	.1565	.1555	.1545	.1535	.1525	.1515	.1506	.1496	.1487	.1477	.1468
75.00	.1458	.1449	.1440	.1430	.1421	.1412	.1403	.1394	.1385	.1376	.1368	.1359
78.00	.1350	.1341	.1333	.1324	.1316	.1307	.1299	.1291	.1283	.1274	.1266	.1258
81.00	.1250	.1242	.1234	.1226	.1218	.1211	.1203	.1195	.1187	.1180	.1172	.1165
84.00	.1157	.1150	.1143	.1135	.1128	.1121	.1114	.1106	.1099	.1092	.1085	.1078
87.00	.1072	.1065	.1058	.1051	.1044	.1038	.1031	.1024	.1018	.1011	.1005	.0999

PA - 233

HALF-LIFE 27.00 DAYS   CALCULATION INTERVAL 6.0 HOURS

	HOURS											
DAYS	0.0	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0	66.0
90.00	.0992	.0986	.0979	.0973	.0967	.0961	.0955	.0949	.0942	.0936	.0930	.0924
93.00	.0919	.0913	.0907	.0901	.0895	.0890	.0884	.0878	.0873	.0867	.0861	.0856
96.00	.0850	.0845	.0840	.0834	.0829	.0824	.0818	.0813	.0808	.0803	.0798	.0793

PA - 234

HALF-LIFE 6.75 HOURS   CALCULATION INTERVAL 5.0 MINUTES

	MINUTES											
HOURS	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0
0.00	1.0000	.9915	.9830	.9747	.9663	.9581	.9500	.9419	.9338	.9259	.9180	.9102
1.00	.9024	.8947	.8871	.8795	.8720	.8646	.8572	.8499	.8427	.8355	.8284	.8213
2.00	.8143	.8074	.8005	.7937	.7869	.7802	.7736	.7670	.7605	.7540	.7476	.7412
3.00	.7349	.7286	.7224	.7162	.7101	.7041	.6981	.6921	.6862	.6804	.6746	.6688
4.00	.6632	.6575	.6519	.6463	.6408	.6354	.6300	.6246	.6193	.6140	.6088	.6036
5.00	.5984	.5933	.5883	.5833	.5783	.5734	.5685	.5636	.5588	.5541	.5494	.5447
6.00	.5400	.5354	.5309	.5263	.5219	.5174	.5130	.5086	.5043	.5000	.4957	.4915
7.00	.4873	.4832	.4791	.4750	.4709	.4669	.4629	.4590	.4551	.4512	.4474	.4435
8.00	.4398	.4360	.4323	.4286	.4250	.4213	.4178	.4142	.4107	.4072	.4037	.4003
9.00	.3969	.3935	.3901	.3868	.3835	.3802	.3770	.3738	.3706	.3674	.3643	.3612
10.00	.3581	.3551	.3520	.3490	.3461	.3431	.3402	.3373	.3344	.3316	.3287	.3259
11.00	.3232	.3204	.3177	.3150	.3123	.3096	.3070	.3044	.3018	.2992	.2967	.2941
12.00	.2916	.2891	.2867	.2842	.2818	.2794	.2770	.2747	.2723	.2700	.2677	.2654
13.00	.2632	.2609	.2587	.2565	.2543	.2521	.2500	.2479	.2458	.2437	.2416	.2395
14.00	.2375	.2355	.2335	.2315	.2295	.2275	.2256	.2237	.2218	.2199	.2180	.2162
15.00	.2143	.2125	.2107	.2089	.2071	.2053	.2036	.2019	.2001	.1984	.1967	.1951
16.00	.1934	.1917	.1901	.1885	.1869	.1853	.1837	.1822	.1806	.1791	.1775	.1760
17.00	.1745	.1730	.1716	.1701	.1686	.1672	.1658	.1644	.1630	.1616	.1602	.1588
18.00	.1575	.1561	.1548	.1535	.1522	.1509	.1496	.1483	.1471	.1458	.1446	.1433
19.00	.1421	.1409	.1397	.1385	.1373	.1362	.1350	.1339	.1327	.1316	.1305	.1294
20.00	.1283	.1272	.1261	.1250	.1239	.1229	.1218	.1208	.1198	.1187	.1177	.1167
21.00	.1157	.1147	.1138	.1128	.1118	.1109	.1099	.1090	.1081	.1072	.1062	.1053
22.00	.1044	.1035	.1027	.1018	.1009	.1001	.0992	.0984	.0975	.0967	.0959	.0951
23.00	.0942	.0934	.0926	.0919	.0911	.0903	.0895	.0888	.0880	.0873	.0865	.0858
24.00	.0850	.0843	.0836	.0829	.0822	.0815	.0808	.0801	.0794	.0787	.0781	.0774

U - 237

HALF-LIFE 6.75 DAYS   CALCULATION INTERVAL 1.0 HOURS

	HOURS											
DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
0.00	1.0000	.9957	.9915	.9872	.9830	.9788	.9747	.9705	.9663	.9622	.9581	.9540
.50	.9500	.9459	.9419	.9378	.9338	.9298	.9259	.9219	.9180	.9141	.9102	.9063
1.00	.9024	.8986	.8947	.8909	.8871	.8833	.8795	.8758	.8720	.8683	.8646	.8609
1.50	.8572	.8536	.8499	.8463	.8427	.8391	.8355	.8319	.8284	.8249	.8213	.8178
2.00	.8143	.8109	.8074	.8040	.8005	.7971	.7937	.7903	.7869	.7836	.7802	.7769
2.50	.7736	.7703	.7670	.7637	.7605	.7572	.7540	.7508	.7476	.7444	.7412	.7380
3.00	.7349	.7317	.7286	.7255	.7224	.7193	.7162	.7132	.7101	.7071	.7041	.7011
3.50	.6981	.6951	.6921	.6892	.6862	.6833	.6804	.6775	.6746	.6717	.6688	.6660
4.00	.6632	.6603	.6575	.6547	.6519	.6491	.6463	.6436	.6408	.6381	.6354	.6327
4.50	.6300	.6273	.6246	.6219	.6193	.6166	.6140	.6114	.6088	.6062	.6036	.6010
5.00	.5984	.5959	.5933	.5908	.5883	.5858	.5833	.5808	.5783	.5758	.5734	.5709
5.50	.5685	.5661	.5636	.5612	.5588	.5564	.5541	.5517	.5494	.5470	.5447	.5423
6.00	.5400	.5377	.5354	.5331	.5309	.5286	.5263	.5241	.5219	.5196	.5174	.5152
6.50	.5130	.5108	.5086	.5065	.5043	.5021	.5000	.4979	.4957	.4936	.4915	.4894
7.00	.4873	.4852	.4832	.4811	.4791	.4770	.4750	.4729	.4709	.4689	.4669	.4649

U - 237

HALF-LIFE 6.75 DAYS CALCULATION INTERVAL 1.0 HOURS

	HOURS											
DAYS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
7.50	.4629	.4610	.4590	.4570	.4551	.4531	.4512	.4493	.4474	.4454	.4435	.4417
8.00	.4398	.4379	.4360	.4342	.4323	.4305	.4286	.4268	.4250	.4232	.4213	.4195
8.50	.4178	.4160	.4142	.4124	.4107	.4089	.4072	.4054	.4037	.4020	.4003	.3986
9.00	.3969	.3952	.3935	.3918	.3901	.3885	.3868	.3851	.3835	.3819	.3802	.3786
9.50	.3770	.3754	.3738	.3722	.3706	.3690	.3674	.3659	.3643	.3627	.3612	.3597
10.00	.3581	.3566	.3551	.3536	.3520	.3505	.3490	.3476	.3461	.3446	.3431	.3417
10.50	.3402	.3387	.3373	.3359	.3344	.3330	.3316	.3302	.3287	.3273	.3259	.3246
11.00	.3232	.3218	.3204	.3190	.3177	.3163	.3150	.3136	.3123	.3110	.3096	.3083
11.50	.3070	.3057	.3044	.3031	.3018	.3005	.2992	.2979	.2967	.2954	.2941	.2929
12.00	.2916	.2904	.2891	.2879	.2867	.2855	.2842	.2830	.2818	.2806	.2794	.2782
12.50	.2770	.2759	.2747	.2735	.2723	.2712	.2700	.2689	.2677	.2666	.2654	.2643
13.00	.2632	.2620	.2609	.2598	.2587	.2576	.2565	.2554	.2543	.2532	.2521	.2511
13.50	.2500	.2489	.2479	.2468	.2458	.2447	.2437	.2426	.2416	.2406	.2395	.2385
14.00	.2375	.2365	.2355	.2345	.2335	.2325	.2315	.2305	.2295	.2285	.2275	.2266
14.50	.2256	.2246	.2237	.2227	.2218	.2208	.2199	.2189	.2180	.2171	.2162	.2152
15.00	.2143	.2134	.2125	.2116	.2107	.2098	.2089	.2080	.2071	.2062	.2053	.2045
15.50	.2036	.2027	.2019	.2010	.2001	.1993	.1984	.1976	.1967	.1959	.1951	.1942
16.00	.1934	.1926	.1917	.1909	.1901	.1893	.1885	.1877	.1869	.1861	.1853	.1845
16.50	.1837	.1829	.1822	.1814	.1806	.1798	.1791	.1783	.1775	.1768	.1760	.1753
17.00	.1745	.1738	.1730	.1723	.1716	.1708	.1701	.1694	.1686	.1679	.1672	.1665
17.50	.1658	.1651	.1644	.1637	.1630	.1623	.1616	.1609	.1602	.1595	.1588	.1582
18.00	.1575	.1568	.1561	.1555	.1548	.1542	.1535	.1528	.1522	.1515	.1509	.1502
18.50	.1496	.1490	.1483	.1477	.1471	.1464	.1458	.1452	.1446	.1440	.1433	.1427
19.00	.1421	.1415	.1409	.1403	.1397	.1391	.1385	.1379	.1373	.1368	.1362	.1356
19.50	.1350	.1344	.1339	.1333	.1327	.1321	.1316	.1310	.1305	.1299	.1294	.1288
20.00	.1283	.1277	.1272	.1266	.1261	.1255	.1250	.1245	.1239	.1234	.1229	.1224
20.50	.1218	.1213	.1208	.1203	.1198	.1193	.1187	.1182	.1177	.1172	.1167	.1162
21.00	.1157	.1152	.1147	.1143	.1138	.1133	.1128	.1123	.1118	.1114	.1109	.1104
21.50	.1099	.1095	.1090	.1085	.1081	.1076	.1072	.1067	.1062	.1058	.1053	.1049
22.00	.1044	.1040	.1035	.1031	.1027	.1022	.1018	.1014	.1009	.1005	.1001	.0996
22.50	.0992	.0988	.0984	.0979	.0975	.0971	.0967	.0963	.0959	.0955	.0951	.0947
23.00	.0942	.0938	.0934	.0930	.0926	.0923	.0919	.0915	.0911	.0907	.0903	.0899
23.50	.0895	.0891	.0888	.0884	.0880	.0876	.0873	.0869	.0865	.0861	.0858	.0854
24.00	.0850	.0847	.0843	.0840	.0836	.0832	.0829	.0825	.0822	.0818	.0815	.0811
24.50	.0808	.0804	.0801	.0798	.0794	.0791	.0787	.0784	.0781	.0777	.0774	.0771

PU - 238

HALF-LIFE 86.40 YEARS CALCULATION INTERVAL 1.0 YEARS

	YEARS									
YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9920	.9841	.9762	.9684	.9607	.9530	.9454	.9378	.9303
10.0	.9229	.9155	.9082	.9010	.8938	.8866	.8795	.8725	.8655	.8586
20.0	.8518	.8450	.8382	.8315	.8249	.8183	.8117	.8052	.7988	.7924
30.0	.7861	.7798	.7736	.7674	.7613	.7552	.7492	.7432	.7372	.7313
40.0	.7255	.7197	.7139	.7082	.7026	.6970	.6914	.6859	.6804	.6750
50.0	.6696	.6642	.6589	.6536	.6484	.6432	.6381	.6330	.6279	.6229
60.0	.6179	.6130	.6081	.6033	.5984	.5937	.5889	.5842	.5795	.5749
70.0	.5703	.5658	.5612	.5567	.5523	.5479	.5435	.5392	.5349	.5306
80.0	.5263	.5221	.5180	.5138	.5097	.5056	.5016	.4976	.4936	.4897
90.0	.4858	.4819	.4780	.4742	.4704	.4667	.4629	.4592	.4556	.4519
100.0	.4483	.4447	.4412	.4377	.4342	.4307	.4272	.4238	.4204	.4171
110.0	.4138	.4104	.4072	.4039	.4007	.3975	.3943	.3912	.3880	.3849
120.0	.3819	.3788	.3758	.3728	.3698	.3668	.3639	.3610	.3581	.3553
130.0	.3524	.3496	.3468	.3440	.3413	.3386	.3359	.3332	.3305	.3279
140.0	.3253	.3227	.3201	.3175	.3150	.3125	.3100	.3075	.3050	.3026

PU - 238

HALF-LIFE 86.40 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	YEARS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
150.0	.3002	.2978	.2954	.2930	.2907	.2884	.2861	.2838	.2815	.2793
160.0	.2770	.2748	.2726	.2704	.2683	.2661	.2640	.2619	.2598	.2577
170.0	.2557	.2536	.2516	.2496	.2476	.2456	.2437	.2417	.2398	.2379
180.0	.2360	.2341	.2322	.2304	.2285	.2267	.2249	.2231	.2213	.2195
190.0	.2178	.2160	.2143	.2126	.2109	.2092	.2075	.2059	.2042	.2026
200.0	.2010	.1994	.1978	.1962	.1946	.1931	.1915	.1900	.1885	.1870
210.0	.1855	.1840	.1825	.1811	.1796	.1782	.1768	.1754	.1740	.1726
220.0	.1712	.1698	.1685	.1671	.1658	.1645	.1631	.1618	.1606	.1593
230.0	.1580	.1567	.1555	.1542	.1530	.1518	.1506	.1494	.1482	.1470
240.0	.1458	.1447	.1435	.1423	.1412	.1401	.1390	.1379	.1368	.1357
250.0	.1346	.1335	.1324	.1314	.1303	.1293	.1283	.1272	.1262	.1252
260.0	.1242	.1232	.1222	.1212	.1203	.1193	.1184	.1174	.1165	.1155
270.0	.1146	.1137	.1128	.1119	.1110	.1101	.1092	.1084	.1075	.1066
280.0	.1058	.1049	.1041	.1033	.1024	.1016	.1008	.1000	.0992	.0984
290.0	.0976	.0969	.0961	.0953	.0946	.0938	.0930	.0923	.0916	.0908
300.0	.0901	.0894	.0887	.0880	.0873	.0866	.0859	.0852	.0845	.0838
310.0	.0832	.0825	.0818	.0812	.0805	.0799	.0793	.0786	.0780	.0774

PU - 241

HALF-LIFE 13.20 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	DAYS 0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
0.0	1.0000	.9957	.9914	.9871	.9829	.9787	.9744	.9702	.9661	.9619
300.0	.9578	.9536	.9495	.9454	.9414	.9373	.9333	.9293	.9253	.9213
600.0	.9173	.9134	.9094	.9055	.9016	.8977	.8939	.8900	.8862	.8824
900.0	.8786	.8748	.8710	.8673	.8635	.8598	.8561	.8524	.8487	.8451
1200.0	.8414	.8378	.8342	.8306	.8270	.8235	.8199	.8164	.8129	.8094
1500.0	.8059	.8024	.7990	.7955	.7921	.7887	.7853	.7819	.7785	.7752
1800.0	.7719	.7685	.7652	.7619	.7586	.7554	.7521	.7489	.7457	.7424
2100.0	.7393	.7361	.7329	.7297	.7266	.7235	.7204	.7172	.7142	.7111
2400.0	.7080	.7050	.7019	.6989	.6959	.6929	.6899	.6870	.6840	.6810
2700.0	.6781	.6752	.6723	.6694	.6665	.6636	.6608	.6579	.6551	.6523
3000.0	.6495	.6467	.6439	.6411	.6384	.6356	.6329	.6301	.6274	.6247
3300.0	.6220	.6194	.6167	.6140	.6114	.6088	.6061	.6035	.6009	.5983
3600.0	.5958	.5932	.5906	.5881	.5856	.5830	.5805	.5780	.5755	.5731
3900.0	.5706	.5681	.5657	.5633	.5608	.5584	.5560	.5536	.5512	.5489
4200.0	.5465	.5441	.5418	.5395	.5371	.5348	.5325	.5302	.5279	.5257
4500.0	.5234	.5212	.5189	.5167	.5144	.5122	.5100	.5078	.5056	.5035
4800.0	.5013	.4991	.4970	.4948	.4927	.4906	.4885	.4864	.4843	.4822
5100.0	.4801	.4781	.4760	.4739	.4719	.4699	.4678	.4658	.4638	.4618
5400.0	.4598	.4579	.4559	.4539	.4520	.4500	.4481	.4462	.4442	.4423
5700.0	.4404	.4385	.4366	.4347	.4329	.4310	.4292	.4273	.4255	.4236
6000.0	.4218	.4200	.4182	.4164	.4146	.4128	.4110	.4093	.4075	.4057
6300.0	.4040	.4023	.4005	.3988	.3971	.3954	.3937	.3920	.3903	.3886
6600.0	.3869	.3853	.3836	.3820	.3803	.3787	.3770	.3754	.3738	.3722
6900.0	.3706	.3690	.3674	.3658	.3642	.3627	.3611	.3596	.3580	.3565
7200.0	.3549	.3534	.3519	.3504	.3489	.3474	.3459	.3444	.3429	.3414
7500.0	.3399	.3385	.3370	.3356	.3341	.3327	.3312	.3298	.3284	.3270
7800.0	.3256	.3242	.3228	.3214	.3200	.3186	.3173	.3159	.3145	.3132
8100.0	.3118	.3105	.3091	.3078	.3065	.3052	.3039	.3025	.3012	.2999
8400.0	.2987	.2974	.2961	.2948	.2935	.2923	.2910	.2898	.2885	.2873
8700.0	.2860	.2848	.2836	.2824	.2811	.2799	.2787	.2775	.2763	.2751

PU - 241

HALF-LIFE 13.20 YEARS CALCULATION INTERVAL 30.0 DAYS

DAYS	0.0	30.0	60.0	90.0	120.0	150.0	180.0	210.0	240.0	270.0
9000.0	.2740	.2728	.2716	.2704	.2693	.2681	.2670	.2658	.2647	.2635
9300.0	.2624	.2613	.2601	.2590	.2579	.2568	.2557	.2546	.2535	.2524
9600.0	.2513	.2502	.2491	.2481	.2470	.2459	.2449	.2438	.2428	.2417
9900.0	.2407	.2396	.2386	.2376	.2366	.2355	.2345	.2335	.2325	.2315
10200.0	.2305	.2295	.2285	.2276	.2266	.2256	.2246	.2237	.2227	.2217
10500.0	.2208	.2198	.2189	.2179	.2170	.2161	.2151	.2142	.2133	.2124
10800.0	.2115	.2105	.2096	.2087	.2078	.2069	.2060	.2052	.2043	.2034
11100.0	.2025	.2016	.2008	.1999	.1991	.1982	.1973	.1965	.1956	.1948
11400.0	.1940	.1931	.1923	.1915	.1906	.1898	.1890	.1882	.1874	.1866
11700.0	.1858	.1850	.1842	.1834	.1826	.1818	.1810	.1802	.1795	.1787
12000.0	.1779	.1772	.1764	.1756	.1749	.1741	.1734	.1726	.1719	.1711
12300.0	.1704	.1697	.1689	.1682	.1675	.1668	.1661	.1653	.1646	.1639
12600.0	.1632	.1625	.1618	.1611	.1604	.1597	.1590	.1584	.1577	.1570
12900.0	.1563	.1556	.1550	.1543	.1536	.1530	.1523	.1517	.1510	.1504
13200.0	.1497	.1491	.1484	.1478	.1472	.1465	.1459	.1453	.1446	.1440
13500.0	.1434	.1428	.1422	.1415	.1409	.1403	.1397	.1391	.1385	.1379
13800.0	.1373	.1367	.1362	.1356	.1350	.1344	.1338	.1332	.1327	.1321
14100.0	.1315	.1310	.1304	.1298	.1293	.1287	.1282	.1276	.1271	.1265
14400.0	.1260	.1254	.1249	.1244	.1238	.1233	.1228	.1222	.1217	.1212
14700.0	.1207	.1201	.1196	.1191	.1186	.1181	.1176	.1171	.1166	.1161
15000.0	.1156	.1151	.1146	.1141	.1136	.1131	.1126	.1121	.1116	.1112
15300.0	.1107	.1102	.1097	.1093	.1088	.1083	.1078	.1074	.1069	.1065
15600.0	.1060	.1055	.1051	.1046	.1042	.1037	.1033	.1028	.1024	.1020
15900.0	.1015	.1011	.1007	.1002	.0998	.0994	.0989	.0985	.0981	.0977
16200.0	.0972	.0968	.0964	.0960	.0956	.0952	.0947	.0943	.0939	.0935
16500.0	.0931	.0927	.0923	.0919	.0915	.0911	.0907	.0904	.0900	.0896
16800.0	.0892	.0888	.0884	.0880	.0877	.0873	.0869	.0865	.0862	.0858
17100.0	.0854	.0851	.0847	.0843	.0840	.0836	.0832	.0829	.0825	.0822
17400.0	.0818	.0815	.0811	.0808	.0804	.0801	.0797	.0794	.0790	.0787

PU - 241

HALF-LIFE 13.20 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9488	.9003	.8542	.8105	.7691	.7297	.6924	.6570	.6234
10.0	.5915	.5612	.5325	.5053	.4794	.4549	.4316	.4096	.3886	.3687
20.0	.3499	.3320	.3150	.2989	.2836	.2691	.2553	.2422	.2299	.2181
30.0	.2069	.1964	.1863	.1768	.1677	.1592	.1510	.1433	.1360	.1290
40.0	.1224	.1161	.1102	.1046	.0992	.0941	.0893	.0848	.0804	.0763

AM - 241

HALF-LIFE 458.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1.0000	.9985	.9970	.9955	.9940	.9925	.9910	.9895	.9880	.9865
10.0	.9850	.9835	.9820	.9805	.9790	.9776	.9761	.9746	.9731	.9717
20.0	.9702	.9687	.9673	.9658	.9643	.9629	.9614	.9600	.9585	.9571
30.0	.9556	.9542	.9527	.9513	.9498	.9484	.9470	.9455	.9441	.9427
40.0	.9413	.9398	.9384	.9370	.9356	.9342	.9328	.9313	.9299	.9285
50.0	.9271	.9257	.9243	.9229	.9215	.9201	.9187	.9174	.9160	.9146
60.0	.9132	.9118	.9104	.9091	.9077	.9063	.9049	.9036	.9022	.9008
70.0	.8995	.8981	.8968	.8954	.8941	.8927	.8913	.8900	.8887	.8873
80.0	.8860	.8846	.8833	.8820	.8806	.8793	.8780	.8766	.8753	.8740
90.0	.8727	.8713	.8700	.8687	.8674	.8661	.8648	.8635	.8622	.8609

AM - 241

HALF-LIFE 458.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
100.0	.8596	.8583	.8570	.8557	.8544	.8531	.8518	.8505	.8492	.8479
110.0	.8466	.8454	.8441	.8428	.8415	.8403	.8390	.8377	.8365	.8352
120.0	.8339	.8327	.8314	.8301	.8289	.8276	.8264	.8251	.8239	.8226
130.0	.8214	.8202	.8189	.8177	.8164	.8152	.8140	.8127	.8115	.8103
140.0	.8091	.8078	.8066	.8054	.8042	.8030	.8017	.8005	.7993	.7981
150.0	.7969	.7957	.7945	.7933	.7921	.7909	.7897	.7885	.7873	.7861
160.0	.7849	.7838	.7826	.7814	.7802	.7790	.7778	.7767	.7755	.7743
170.0	.7732	.7720	.7708	.7696	.7685	.7673	.7662	.7650	.7638	.7627
180.0	.7615	.7604	.7592	.7581	.7569	.7558	.7547	.7535	.7524	.7512
190.0	.7501	.7490	.7478	.7467	.7456	.7444	.7433	.7422	.7411	.7400
200.0	.7388	.7377	.7366	.7355	.7344	.7333	.7322	.7310	.7299	.7288
210.0	.7277	.7266	.7255	.7244	.7233	.7222	.7212	.7201	.7190	.7179
220.0	.7168	.7157	.7146	.7136	.7125	.7114	.7103	.7093	.7082	.7071
230.0	.7060	.7050	.7039	.7028	.7018	.7007	.6997	.6986	.6975	.6965
240.0	.6954	.6944	.6933	.6923	.6912	.6902	.6891	.6881	.6871	.6860
250.0	.6850	.6840	.6829	.6819	.6809	.6798	.6788	.6778	.6767	.6757
260.0	.6747	.6737	.6727	.6716	.6706	.6696	.6686	.6676	.6666	.6656
270.0	.6646	.6636	.6626	.6616	.6606	.6596	.6586	.6576	.6566	.6556
280.0	.6546	.6536	.6526	.6516	.6506	.6496	.6487	.6477	.6467	.6457
290.0	.6448	.6438	.6428	.6418	.6409	.6399	.6389	.6380	.6370	.6360
300.0	.6351	.6341	.6331	.6322	.6312	.6303	.6293	.6284	.6274	.6265
310.0	.6255	.6246	.6236	.6227	.6218	.6208	.6199	.6189	.6180	.6171
320.0	.6161	.6152	.6143	.6133	.6124	.6115	.6106	.6096	.6087	.6078
330.0	.6069	.6060	.6050	.6041	.6032	.6023	.6014	.6005	.5996	.5987
340.0	.5978	.5969	.5960	.5951	.5942	.5933	.5924	.5915	.5906	.5897
350.0	.5888	.5879	.5870	.5861	.5852	.5843	.5835	.5826	.5817	.5808
360.0	.5799	.5791	.5782	.5773	.5764	.5756	.5747	.5738	.5730	.5721
370.0	.5712	.5704	.5695	.5686	.5678	.5669	.5661	.5652	.5644	.5635
380.0	.5626	.5618	.5609	.5601	.5593	.5584	.5576	.5567	.5559	.5550
390.0	.5542	.5534	.5525	.5517	.5509	.5500	.5492	.5484	.5475	.5467
400.0	.5459	.5450	.5442	.5434	.5426	.5418	.5409	.5401	.5393	.5385
410.0	.5377	.5369	.5360	.5352	.5344	.5336	.5328	.5320	.5312	.5304
420.0	.5296	.5288	.5280	.5272	.5264	.5256	.5248	.5240	.5232	.5224
430.0	.5216	.5209	.5201	.5193	.5185	.5177	.5169	.5161	.5154	.5146
440.0	.5138	.5130	.5123	.5115	.5107	.5099	.5092	.5084	.5076	.5069
450.0	.5061	.5053	.5046	.5038	.5030	.5023	.5015	.5008	.5000	.4992
460.0	.4985	.4977	.4970	.4962	.4955	.4947	.4940	.4932	.4925	.4917
470.0	.4910	.4903	.4895	.4888	.4880	.4873	.4866	.4858	.4851	.4844
480.0	.4836	.4829	.4822	.4814	.4807	.4800	.4793	.4785	.4778	.4771
490.0	.4764	.4756	.4749	.4742	.4735	.4728	.4721	.4713	.4706	.4699
500.0	.4692	.4685	.4678	.4671	.4664	.4657	.4650	.4643	.4636	.4629
510.0	.4622	.4615	.4608	.4601	.4594	.4587	.4580	.4573	.4566	.4559
520.0	.4552	.4545	.4538	.4532	.4525	.4518	.4511	.4504	.4497	.4491
530.0	.4484	.4477	.4470	.4463	.4457	.4450	.4443	.4437	.4430	.4423
540.0	.4416	.4410	.4403	.4396	.4390	.4383	.4377	.4370	.4363	.4357
550.0	.4350	.4344	.4337	.4330	.4324	.4317	.4311	.4304	.4298	.4291
560.0	.4285	.4278	.4272	.4265	.4259	.4252	.4246	.4240	.4233	.4227
570.0	.4220	.4214	.4208	.4201	.4195	.4189	.4182	.4176	.4170	.4163
580.0	.4157	.4151	.4144	.4138	.4132	.4126	.4119	.4113	.4107	.4101
590.0	.4095	.4088	.4082	.4076	.4070	.4064	.4058	.4051	.4045	.4039
600.0	.4033	.4027	.4021	.4015	.4009	.4003	.3997	.3991	.3985	.3979
610.0	.3973	.3967	.3961	.3955	.3949	.3943	.3937	.3931	.3925	.3919
620.0	.3913	.3907	.3901	.3895	.3889	.3883	.3877	.3872	.3866	.3860
630.0	.3854	.3848	.3842	.3837	.3831	.3825	.3819	.3813	.3808	.3802
640.0	.3796	.3790	.3785	.3779	.3773	.3768	.3762	.3756	.3750	.3745

AM - 241

HALF-LIFE 458.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
650.0	.3739	.3734	.3728	.3722	.3717	.3711	.3705	.3700	.3694	.3689
660.0	.3683	.3677	.3672	.3666	.3661	.3655	.3650	.3644	.3639	.3633
670.0	.3628	.3622	.3617	.3611	.3606	.3600	.3595	.3589	.3584	.3579
680.0	.3573	.3568	.3562	.3557	.3552	.3546	.3541	.3536	.3530	.3525
690.0	.3520	.3514	.3509	.3504	.3498	.3493	.3488	.3482	.3477	.3472
700.0	.3467	.3461	.3456	.3451	.3446	.3441	.3435	.3430	.3425	.3420
710.0	.3415	.3409	.3404	.3399	.3394	.3389	.3384	.3379	.3373	.3368
720.0	.3363	.3358	.3353	.3348	.3343	.3338	.3333	.3328	.3323	.3318
730.0	.3313	.3308	.3303	.3298	.3293	.3288	.3283	.3278	.3273	.3268
740.0	.3263	.3258	.3253	.3248	.3243	.3238	.3234	.3229	.3224	.3219
750.0	.3214	.3209	.3204	.3199	.3195	.3190	.3185	.3180	.3175	.3171
760.0	.3166	.3161	.3156	.3151	.3147	.3142	.3137	.3132	.3128	.3123
770.0	.3118	.3113	.3109	.3104	.3099	.3095	.3090	.3085	.3081	.3076
780.0	.3071	.3067	.3062	.3057	.3053	.3048	.3044	.3039	.3034	.3030
790.0	.3025	.3021	.3016	.3012	.3007	.3002	.2998	.2993	.2989	.2984
800.0	.2980	.2975	.2971	.2966	.2962	.2957	.2953	.2948	.2944	.2939
810.0	.2935	.2931	.2926	.2922	.2917	.2913	.2908	.2904	.2900	.2895
820.0	.2891	.2887	.2882	.2878	.2873	.2869	.2865	.2860	.2856	.2852
830.0	.2848	.2843	.2839	.2835	.2830	.2826	.2822	.2818	.2813	.2809
840.0	.2805	.2800	.2796	.2792	.2788	.2784	.2779	.2775	.2771	.2767
850.0	.2763	.2758	.2754	.2750	.2746	.2742	.2738	.2733	.2729	.2725
860.0	.2721	.2717	.2713	.2709	.2705	.2701	.2697	.2692	.2688	.2684
870.0	.2680	.2676	.2672	.2668	.2664	.2660	.2656	.2652	.2648	.2644
880.0	.2640	.2636	.2632	.2628	.2624	.2620	.2616	.2612	.2608	.2604
890.0	.2600	.2596	.2592	.2589	.2585	.2581	.2577	.2573	.2569	.2565
900.0	.2561	.2557	.2554	.2550	.2546	.2542	.2538	.2534	.2530	.2527
910.0	.2523	.2519	.2515	.2511	.2508	.2504	.2500	.2496	.2492	.2489
920.0	.2485	.2481	.2477	.2474	.2470	.2466	.2462	.2459	.2455	.2451
930.0	.2448	.2444	.2440	.2436	.2433	.2429	.2425	.2422	.2418	.2414
940.0	.2411	.2407	.2404	.2400	.2396	.2393	.2389	.2385	.2382	.2378
950.0	.2375	.2371	.2367	.2364	.2360	.2357	.2353	.2350	.2346	.2342
960.0	.2339	.2335	.2332	.2328	.2325	.2321	.2318	.2314	.2311	.2307
970.0	.2304	.2300	.2297	.2293	.2290	.2286	.2283	.2280	.2276	.2273
980.0	.2269	.2266	.2262	.2259	.2256	.2252	.2249	.2245	.2242	.2239
990.0	.2235	.2232	.2228	.2225	.2222	.2218	.2215	.2212	.2208	.2205
1000.0	.2202	.2198	.2195	.2192	.2188	.2185	.2182	.2178	.2175	.2172
1010.0	.2168	.2165	.2162	.2159	.2155	.2152	.2149	.2146	.2142	.2139
1020.0	.2136	.2133	.2129	.2126	.2123	.2120	.2117	.2113	.2110	.2107
1030.0	.2104	.2101	.2097	.2094	.2091	.2088	.2085	.2082	.2079	.2075
1040.0	.2072	.2069	.2066	.2063	.2060	.2057	.2054	.2050	.2047	.2044
1050.0	.2041	.2038	.2035	.2032	.2029	.2026	.2023	.2020	.2017	.2013
1060.0	.2010	.2007	.2004	.2001	.1998	.1995	.1992	.1989	.1986	.1983
1070.0	.1980	.1977	.1974	.1971	.1968	.1965	.1962	.1959	.1956	.1953
1080.0	.1951	.1948	.1945	.1942	.1939	.1936	.1933	.1930	.1927	.1924
1090.0	.1921	.1918	.1915	.1913	.1910	.1907	.1904	.1901	.1898	.1895
1100.0	.1892	.1889	.1887	.1884	.1881	.1878	.1875	.1872	.1870	.1867
1110.0	.1864	.1861	.1858	.1855	.1853	.1850	.1847	.1844	.1841	.1839
1120.0	.1836	.1833	.1830	.1828	.1825	.1822	.1819	.1817	.1814	.1811
1130.0	.1808	.1806	.1803	.1800	.1797	.1795	.1792	.1789	.1787	.1784
1140.0	.1781	.1779	.1776	.1773	.1770	.1768	.1765	.1762	.1760	.1757
1150.0	.1754	.1752	.1749	.1746	.1744	.1741	.1739	.1736	.1733	.1731
1160.0	.1728	.1725	.1723	.1720	.1718	.1715	.1712	.1710	.1707	.1705
1170.0	.1702	.1700	.1697	.1694	.1692	.1689	.1687	.1684	.1682	.1679
1180.0	.1677	.1674	.1671	.1669	.1666	.1664	.1661	.1659	.1656	.1654
1190.0	.1651	.1649	.1646	.1644	.1641	.1639	.1636	.1634	.1632	.1629

AM - 241

HALF-LIFE 458.00 YEARS CALCULATION INTERVAL 1.0 YEARS

YEARS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
1200.0	.1627	.1624	.1622	.1619	.1617	.1614	.1612	.1609	.1607	.1605
1210.0	.1602	.1600	.1597	.1595	.1592	.1590	.1588	.1585	.1583	.1580
1220.0	.1578	.1576	.1573	.1571	.1569	.1566	.1564	.1561	.1559	.1557
1230.0	.1554	.1552	.1550	.1547	.1545	.1543	.1540	.1538	.1536	.1533
1240.0	.1531	.1529	.1526	.1524	.1522	.1519	.1517	.1515	.1513	.1510
1250.0	.1508	.1506	.1503	.1501	.1499	.1497	.1494	.1492	.1490	.1488
1260.0	.1485	.1483	.1481	.1479	.1476	.1474	.1472	.1470	.1468	.1465
1270.0	.1463	.1461	.1459	.1456	.1454	.1452	.1450	.1448	.1445	.1443
1280.0	.1441	.1439	.1437	.1435	.1432	.1430	.1428	.1426	.1424	.1422
1290.0	.1419	.1417	.1415	.1413	.1411	.1409	.1407	.1404	.1402	.1400
1300.0	.1398	.1396	.1394	.1392	.1390	.1388	.1385	.1383	.1381	.1379
1310.0	.1377	.1375	.1373	.1371	.1369	.1367	.1365	.1363	.1361	.1359
1320.0	.1356	.1354	.1352	.1350	.1348	.1346	.1344	.1342	.1340	.1338
1330.0	.1336	.1334	.1332	.1330	.1328	.1326	.1324	.1322	.1320	.1318
1340.0	.1316	.1314	.1312	.1310	.1308	.1306	.1304	.1302	.1300	.1298
1350.0	.1296	.1294	.1292	.1290	.1288	.1286	.1285	.1283	.1281	.1279
1360.0	.1277	.1275	.1273	.1271	.1269	.1267	.1265	.1263	.1261	.1259
1370.0	.1258	.1256	.1254	.1252	.1250	.1248	.1246	.1244	.1242	.1241
1380.0	.1239	.1237	.1235	.1233	.1231	.1229	.1228	.1226	.1224	.1222
1390.0	.1220	.1218	.1216	.1215	.1213	.1211	.1209	.1207	.1205	.1204
1400.0	.1202	.1200	.1198	.1196	.1195	.1193	.1191	.1189	.1187	.1186
1410.0	.1184	.1182	.1180	.1178	.1177	.1175	.1173	.1171	.1169	.1168
1420.0	.1166	.1164	.1162	.1161	.1159	.1157	.1155	.1154	.1152	.1150
1430.0	.1148	.1147	.1145	.1143	.1141	.1140	.1138	.1136	.1135	.1133
1440.0	.1131	.1129	.1128	.1126	.1124	.1123	.1121	.1119	.1118	.1116
1450.0	.1114	.1113	.1111	.1109	.1107	.1106	.1104	.1102	.1101	.1099
1460.0	.1097	.1096	.1094	.1092	.1091	.1089	.1088	.1086	.1084	.1083
1470.0	.1081	.1079	.1078	.1076	.1074	.1073	.1071	.1070	.1068	.1066
1480.0	.1065	.1063	.1062	.1060	.1058	.1057	.1055	.1054	.1052	.1050
1490.0	.1049	.1047	.1046	.1044	.1042	.1041	.1039	.1038	.1036	.1035
1500.0	.1033	.1031	.1030	.1028	.1027	.1025	.1024	.1022	.1021	.1019
1510.0	.1017	.1016	.1014	.1013	.1011	.1010	.1008	.1007	.1005	.1004
1520.0	.1002	.1001	.0999	.0998	.0996	.0995	.0993	.0992	.0990	.0989
1530.0	.0987	.0986	.0984	.0983	.0981	.0980	.0978	.0977	.0975	.0974
1540.0	.0972	.0971	.0969	.0968	.0966	.0965	.0964	.0962	.0961	.0959
1550.0	.0958	.0956	.0955	.0953	.0952	.0950	.0949	.0948	.0946	.0945
1560.0	.0943	.0942	.0940	.0939	.0938	.0936	.0935	.0933	.0932	.0931
1570.0	.0929	.0928	.0926	.0925	.0924	.0922	.0921	.0919	.0918	.0917
1580.0	.0915	.0914	.0912	.0911	.0910	.0908	.0907	.0906	.0904	.0903
1590.0	.0901	.0900	.0899	.0897	.0896	.0895	.0893	.0892	.0891	.0889
1600.0	.0888	.0887	.0885	.0884	.0883	.0881	.0880	.0879	.0877	.0876
1610.0	.0875	.0873	.0872	.0871	.0869	.0868	.0867	.0865	.0864	.0863
1620.0	.0861	.0860	.0859	.0858	.0856	.0855	.0854	.0852	.0851	.0850
1630.0	.0848	.0847	.0846	.0845	.0843	.0842	.0841	.0840	.0838	.0837
1640.0	.0836	.0334	.0833	.0832	.0831	.0829	.0828	.0827	.0826	.0824
1650.0	.0823	.0922	.0821	.0819	.0818	.0817	.0816	.0815	.0813	.0812
1660.0	.0811	.0810	.0808	.0807	.0806	.0805	.0804	.0802	.0801	.0800

FRACTIONAL INGROWTH OF Y - 90 INTO SR - 90

	HOURS									
HOURS	0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
0.0	0.0000	.0054	.0108	.0161	.0214	.0267	.0320	.0372	.0424	.0476
5.0	.0527	.0578	.0629	.0680	.0730	.0780	.0830	.0879	.0929	.0978
10.0	.1026	.1075	.1123	.1171	.1219	.1266	.1313	.1360	.1407	.1453
15.0	.1499	.1545	.1591	.1636	.1682	.1726	.1771	.1816	.1860	.1904
20.0	.1947	.1991	.2034	.2077	.2120	.2163	.2205	.2247	.2289	.2331
25.0	.2372	.2413	.2454	.2495	.2535	.2576	.2616	.2656	.2695	.2735
30.0	.2774	.2813	.2852	.2890	.2929	.2967	.3005	.3043	.3080	.3118
35.0	.3155	.3192	.3229	.3265	.3301	.3338	.3374	.3409	.3445	.3480
40.0	.3516	.3551	.3585	.3620	.3655	.3689	.3723	.3757	.3790	.3824
45.0	.3857	.3890	.3923	.3956	.3989	.4021	.4054	.4086	.4118	.4149
50.0	.4181	.4212	.4244	.4275	.4306	.4336	.4367	.4397	.4428	.4458
55.0	.4488	.4517	.4547	.4577	.4606	.4635	.4664	.4693	.4721	.4750
60.0	.4778	.4806	.4834	.4862	.4890	.4918	.4945	.4972	.4999	.5026
65.0	.5053	.5080	.5107	.5133	.5159	.5185	.5211	.5237	.5263	.5289
70.0	.5314	.5339	.5364	.5389	.5414	.5439	.5464	.5488	.5513	.5537
75.0	.5561	.5585	.5609	.5632	.5656	.5679	.5703	.5726	.5749	.5772
80.0	.5795	.5817	.5840	.5862	.5885	.5907	.5929	.5951	.5973	.5995
85.0	.6016	.6038	.6059	.6080	.6102	.6123	.6144	.6164	.6185	.6206
90.0	.6226	.6247	.6267	.6287	.6307	.6327	.6347	.6366	.6386	.6406
95.0	.6425	.6444	.6463	.6483	.6501	.6520	.6539	.6558	.6576	.6595
100.0	.6613	.6632	.6650	.6668	.6686	.6704	.6721	.6739	.6757	.6774
105.0	.6792	.6809	.6826	.6843	.6860	.6877	.6894	.6911	.6928	.6944
110.0	.6961	.6977	.6993	.7010	.7026	.7042	.7058	.7074	.7089	.7105
115.0	.7121	.7136	.7152	.7167	.7182	.7197	.7213	.7228	.7243	.7257
120.0	.7272	.7287	.7302	.7316	.7331	.7345	.7359	.7374	.7388	.7402
125.0	.7416	.7430	.7444	.7457	.7471	.7485	.7498	.7512	.7525	.7539
130.0	.7552	.7565	.7578	.7591	.7604	.7617	.7630	.7643	.7655	.7668
135.0	.7681	.7693	.7706	.7718	.7730	.7743	.7755	.7767	.7779	.7791
140.0	.7803	.7815	.7826	.7838	.7850	.7861	.7873	.7884	.7896	.7907
145.0	.7918	.7930	.7941	.7952	.7963	.7974	.7985	.7996	.8006	.8017
150.0	.8028	.8038	.8049	.8060	.8070	.8080	.8091	.8101	.8111	.8121
155.0	.8132	.8142	.8152	.8162	.8172	.8181	.8191	.8201	.8211	.8220
160.0	.8230	.8239	.8249	.8258	.8268	.8277	.8286	.8296	.8305	.8314
165.0	.8323	.8332	.8341	.8350	.8359	.8368	.8376	.8385	.8394	.8402
170.0	.8411	.8420	.8428	.8437	.8445	.8453	.8462	.8470	.8478	.8486
175.0	.8495	.8503	.8511	.8519	.8527	.8535	.8543	.8550	.8558	.8566
180.0	.8574	.8581	.8589	.8597	.8604	.8612	.8619	.8626	.8634	.8641
185.0	.8649	.8656	.8663	.8670	.8677	.8685	.8692	.8699	.8706	.8713
190.0	.8720	.8726	.8733	.8740	.8747	.8754	.8760	.8767	.8774	.8780
195.0	.8787	.8793	.8800	.8806	.8813	.8819	.8825	.8832	.8838	.8844
200.0	.8850	.8857	.8863	.8869	.8875	.8881	.8887	.8893	.8899	.8905
205.0	.8911	.8917	.8922	.8928	.8934	.8940	.8945	.8951	.8957	.8962
210.0	.8968	.8973	.8979	.8984	.8990	.8995	.9001	.9006	.9011	.9017
215.0	.9022	.9027	.9032	.9038	.9043	.9048	.9053	.9058	.9063	.9068
220.0	.9073	.9078	.9083	.9088	.9093	.9098	.9103	.9107	.9112	.9117
225.0	.9122	.9126	.9131	.9136	.9140	.9145	.9149	.9154	.9159	.9163
230.0	.9168	.9172	.9176	.9181	.9185	.9190	.9194	.9198	.9203	.9207
235.0	.9211	.9215	.9220	.9224	.9228	.9232	.9236	.9240	.9244	.9248
240.0	.9252	.9256	.9260	.9264	.9268	.9272	.9276	.9280	.9284	.9288
245.0	.9291	.9295	.9299	.9303	.9306	.9310	.9314	.9317	.9321	.9325

FRACTIONAL INGROWTH OF Y - 90 INTO SR - 90

HOURS	HOURS 0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
250.0	.9328	.9332	.9336	.9339	.9343	.9346	.9350	.9353	.9357	.9360
255.0	.9363	.9367	.9370	.9374	.9377	.9380	.9384	.9387	.9390	.9393
260.0	.9397	.9400	.9403	.9406	.9409	.9412	.9416	.9419	.9422	.9425
265.0	.9428	.9431	.9434	.9437	.9440	.9443	.9446	.9449	.9452	.9455
270.0	.9458	.9461	.9463	.9466	.9469	.9472	.9475	.9478	.9480	.9483
275.0	.9486	.9489	.9491	.9494	.9497	.9499	.9502	.9505	.9507	.9510
280.0	.9513	.9515	.9518	.9520	.9523	.9525	.9528	.9530	.9533	.9535
285.0	.9538	.9540	.9543	.9545	.9548	.9550	.9552	.9555	.9557	.9559
290.0	.9562	.9564	.9566	.9569	.9571	.9573	.9576	.9578	.9580	.9582
295.0	.9584	.9587	.9589	.9591	.9593	.9595	.9597	.9600	.9602	.9604
300.0	.9606	.9608	.9610	.9612	.9614	.9616	.9618	.9620	.9622	.9624
305.0	.9626	.9628	.9630	.9632	.9634	.9636	.9638	.9640	.9642	.9644
310.0	.9645	.9647	.9649	.9651	.9653	.9655	.9656	.9658	.9660	.9662
315.0	.9664	.9665	.9667	.9669	.9671	.9672	.9674	.9676	.9678	.9679
320.0	.9681	.9683	.9684	.9686	.9688	.9689	.9691	.9692	.9694	.9696
325.0	.9697	.9699	.9700	.9702	.9704	.9705	.9707	.9708	.9710	.9711
330.0	.9713	.9714	.9716	.9717	.9719	.9720	.9722	.9723	.9724	.9726
335.0	.9727	.9729	.9730	.9732	.9733	.9734	.9736	.9737	.9739	.9740
340.0	.9741	.9743	.9744	.9745	.9747	.9748	.9749	.9750	.9752	.9753
345.0	.9754	.9756	.9757	.9758	.9759	.9761	.9762	.9763	.9764	.9766
350.0	.9767	.9768	.9769	.9770	.9772	.9773	.9774	.9775	.9776	.9777
355.0	.9779	.9780	.9781	.9782	.9783	.9784	.9785	.9786	.9787	.9789
360.0	.9790	.9791	.9792	.9793	.9794	.9795	.9796	.9797	.9798	.9799
365.0	.9800	.9801	.9802	.9803	.9804	.9805	.9806	.9807	.9808	.9809
370.0	.9810	.9811	.9812	.9813	.9814	.9815	.9816	.9817	.9818	.9819
375.0	.9820	.9821	.9821	.9822	.9823	.9824	.9825	.9826	.9827	.9828
380.0	.9829	.9829	.9830	.9831	.9832	.9833	.9834	.9835	.9835	.9836
385.0	.9837	.9838	.9839	.9839	.9840	.9841	.9842	.9843	.9843	.9844
390.0	.9845	.9846	.9847	.9847	.9848	.9849	.9850	.9850	.9851	.9852
395.0	.9853	.9853	.9854	.9855	.9856	.9856	.9857	.9858	.9858	.9859
400.0	.9860	.9860	.9861	.9862	.9863	.9863	.9864	.9865	.9865	.9866
405.0	.9867	.9867	.9868	.9869	.9869	.9870	.9870	.9871	.9872	.9872
410.0	.9873	.9874	.9874	.9875	.9875	.9876	.9877	.9877	.9878	.9878
415.0	.9879	.9880	.9880	.9881	.9881	.9882	.9883	.9883	.9884	.9884
420.0	.9885	.9885	.9886	.9886	.9887	.9888	.9888	.9889	.9889	.9890
425.0	.9890	.9891	.9891	.9892	.9892	.9893	.9893	.9894	.9894	.9895
430.0	.9895	.9896	.9896	.9897	.9897	.9898	.9898	.9899	.9899	.9900
435.0	.9900	.9901	.9901	.9902	.9902	.9903	.9903	.9904	.9904	.9904
440.0	.9905	.9905	.9906	.9906	.9907	.9907	.9907	.9908	.9908	.9909
445.0	.9909	.9910	.9910	.9910	.9911	.9911	.9912	.9912	.9913	.9913
450.0	.9913	.9914	.9914	.9915	.9915	.9915	.9916	.9916	.9916	.9917
455.0	.9917	.9918	.9918	.9918	.9919	.9919	.9919	.9920	.9920	.9921
460.0	.9921	.9921	.9922	.9922	.9922	.9923	.9923	.9923	.9924	.9924
465.0	.9924	.9925	.9925	.9925	.9926	.9926	.9926	.9927	.9927	.9927
470.0	.9928	.9928	.9928	.9929	.9929	.9929	.9930	.9930	.9930	.9930
475.0	.9931	.9931	.9931	.9932	.9932	.9932	.9933	.9933	.9933	.9933
480.0	.9934	.9934	.9934	.9935	.9935	.9935	.9935	.9936	.9936	.9936
485.0	.9936	.9937	.9937	.9937	.9938	.9938	.9938	.9938	.9939	.9939
490.0	.9939	.9939	.9940	.9940	.9940	.9940	.9941	.9941	.9941	.9941
495.0	.9942	.9942	.9942	.9942	.9942	.9943	.9943	.9943	.9943	.9944

FRACTIONAL INGROWTH OF Y - 90 INTO SR - 90

HOURS	0.0	.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
500.0	.9944	.9944	.9944	.9945	.9945	.9945	.9945	.9945	.9946	.9946
505.0	.9946	.9946	.9946	.9947	.9947	.9947	.9947	.9948	.9948	.9948
510.0	.9948	.9948	.9949	.9949	.9949	.9949	.9949	.9950	.9950	.9950
515.0	.9950	.9950	.9950	.9951	.9951	.9951	.9951	.9951	.9952	.9952
520.0	.9952	.9952	.9952	.9952	.9953	.9953	.9953	.9953	.9953	.9954
525.0	.9954	.9954	.9954	.9954	.9954	.9955	.9955	.9955	.9955	.9955
530.0	.9955	.9956	.9956	.9956	.9956	.9956	.9956	.9956	.9957	.9957
535.0	.9957	.9957	.9957	.9957	.9958	.9958	.9958	.9958	.9958	.9958
540.0	.9958	.9959	.9959	.9959	.9959	.9959	.9959	.9959	.9959	.9960
545.0	.9960	.9960	.9960	.9960	.9960	.9960	.9961	.9961	.9961	.9961
550.0	.9961	.9961	.9961	.9961	.9962	.9962	.9962	.9962	.9962	.9962
555.0	.9962	.9962	.9963	.9963	.9963	.9963	.9963	.9963	.9963	.9963
560.0	.9963	.9964	.9964	.9964	.9964	.9964	.9964	.9964	.9964	.9964
565.0	.9964	.9965	.9965	.9965	.9965	.9965	.9965	.9965	.9965	.9965
570.0	.9966	.9966	.9966	.9966	.9966	.9966	.9966	.9966	.9966	.9966
575.0	.9966	.9967	.9967	.9967	.9967	.9967	.9967	.9967	.9967	.9967
580.0	.9967	.9967	.9968	.9968	.9968	.9968	.9968	.9968	.9968	.9968
585.0	.9968	.9968	.9968	.9968	.9969	.9969	.9969	.9969	.9969	.9969
590.0	.9969	.9969	.9969	.9969	.9969	.9969	.9969	.9970	.9970	.9970
595.0	.9970	.9970	.9970	.9970	.9970	.9970	.9970	.9970	.9970	.9970
600.0	.9970	.9971	.9971	.9971	.9971	.9971	.9971	.9971	.9971	.9971
605.0	.9971	.9971	.9971	.9971	.9971	.9971	.9971	.9972	.9972	.9972
610.0	.9972	.9972	.9972	.9972	.9972	.9972	.9972	.9972	.9972	.9972
615.0	.9972	.9972	.9972	.9972	.9972	.9973	.9973	.9973	.9973	.9973
620.0	.9973	.9973	.9973	.9973	.9973	.9973	.9973	.9973	.9973	.9973
625.0	.9973	.9973	.9973	.9973	.9973	.9974	.9974	.9974	.9974	.9974
630.0	.9974	.9974	.9974	.9974	.9974	.9974	.9974	.9974	.9974	.9974
635.0	.9974	.9974	.9974	.9974	.9974	.9974	.9974	.9974	.9975	.9975
640.0	.9975	.9975	.9975	.9975	.9975	.9975	.9975	.9975	.9975	.9975
645.0	.9975	.9975	.9975	.9975	.9975	.9975	.9975	.9975	.9975	.9975
650.0	.9975	.9975	.9975	.9975	.9975	.9975	.9976	.9976	.9976	.9976
655.0	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976
660.0	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976
665.0	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976	.9976
670.0	.9976	.9976	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977
675.0	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977
680.0	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977
685.0	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977
690.0	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977	.9977
695.0	.9977	.9977	.9977	.9977	.9977	.9977	.9978	.9978	.9978	.9978
700.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
705.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
710.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
715.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
720.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
725.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
730.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
735.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
740.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978
745.0	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978	.9978

FRACTIONAL INGROWTH OF RN - 222 INTO RA - 226

HOURS	HOURS 0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	0.0000	.0075	.0150	.0224	.0298	.0371	.0443	.0515	.0586	.0657
10.0	.0728	.0797	.0867	.0935	.1004	.1071	.1139	.1205	.1271	.1337
20.0	.1402	.1467	.1531	.1595	.1658	.1721	.1783	.1845	.1907	.1967
30.0	.2028	.2088	.2147	.2207	.2265	.2323	.2381	.2439	.2495	.2552
40.0	.2608	.2664	.2719	.2774	.2828	.2882	.2936	.2989	.3042	.3094
50.0	.3146	.3197	.3249	.3299	.3350	.3400	.3450	.3499	.3548	.3596
60.0	.3645	.3692	.3740	.3787	.3834	.3880	.3926	.3972	.4017	.4062
70.0	.4107	.4151	.4195	.4239	.4282	.4326	.4368	.4411	.4453	.4494
80.0	.4536	.4577	.4618	.4658	.4699	.4738	.4778	.4817	.4856	.4895
90.0	.4933	.4972	.5009	.5047	.5084	.5121	.5158	.5194	.5231	.5266
100.0	.5302	.5337	.5373	.5407	.5442	.5476	.5510	.5544	.5578	.5611
110.0	.5644	.5677	.5709	.5742	.5774	.5805	.5837	.5868	.5899	.5930
120.0	.5961	.5991	.6021	.6051	.6081	.6111	.6140	.6169	.6198	.6226
130.0	.6255	.6283	.6311	.6339	.6366	.6394	.6421	.6448	.6474	.6501
140.0	.6527	.6553	.6579	.6605	.6631	.6656	.6681	.6706	.6731	.6756
150.0	.6780	.6804	.6828	.6852	.6876	.6899	.6923	.6946	.6969	.6992
160.0	.7014	.7037	.7059	.7081	.7103	.7125	.7147	.7168	.7189	.7211
170.0	.7232	.7252	.7273	.7294	.7314	.7334	.7354	.7374	.7394	.7414
180.0	.7433	.7452	.7471	.7491	.7509	.7528	.7547	.7565	.7584	.7602
190.0	.7620	.7638	.7655	.7673	.7691	.7708	.7725	.7742	.7759	.7776
200.0	.7793	.7810	.7826	.7842	.7859	.7875	.7891	.7907	.7922	.7938
210.0	.7954	.7969	.7984	.7999	.8014	.8029	.8044	.8059	.8074	.8088
220.0	.8102	.8117	.8131	.8145	.8159	.8173	.8187	.8200	.8214	.8227
230.0	.8241	.8254	.8267	.8280	.8293	.8306	.8318	.8331	.8344	.8356
240.0	.8369	.8381	.8393	.8405	.8417	.8429	.8441	.8453	.8464	.8476
250.0	.8487	.8499	.8510	.8521	.8532	.8543	.8554	.8565	.8576	.8587
260.0	.8597	.8608	.8618	.8629	.8639	.8649	.8659	.8670	.8680	.8689
270.0	.8699	.8709	.8719	.8729	.8738	.8748	.8757	.8766	.8776	.8785
280.0	.8794	.8803	.8812	.8821	.8830	.8839	.8847	.8856	.8865	.8873
290.0	.8882	.8890	.8899	.8907	.8915	.8923	.8931	.8939	.8947	.8955
300.0	.8963	.8971	.8979	.8986	.8994	.9002	.9009	.9016	.9024	.9031
310.0	.9039	.9046	.9053	.9060	.9067	.9074	.9081	.9088	.9095	.9102
320.0	.9108	.9115	.9122	.9128	.9135	.9142	.9148	.9154	.9161	.9167
330.0	.9173	.9180	.9186	.9192	.9198	.9204	.9210	.9216	.9222	.9228
340.0	.9233	.9239	.9245	.9251	.9256	.9262	.9267	.9273	.9278	.9284
350.0	.9289	.9295	.9300	.9305	.9310	.9316	.9321	.9326	.9331	.9336
360.0	.9341	.9346	.9351	.9356	.9361	.9365	.9370	.9375	.9380	.9384
370.0	.9389	.9393	.9398	.9403	.9407	.9412	.9416	.9420	.9425	.9429
380.0	.9433	.9438	.9442	.9446	.9450	.9454	.9458	.9463	.9467	.9471
390.0	.9475	.9479	.9482	.9486	.9490	.9494	.9498	.9502	.9505	.9509
400.0	.9513	.9516	.9520	.9524	.9527	.9531	.9534	.9538	.9541	.9545
410.0	.9548	.9552	.9555	.9558	.9562	.9565	.9568	.9571	.9575	.9578
420.0	.9581	.9584	.9587	.9590	.9594	.9597	.9600	.9603	.9606	.9609
430.0	.9612	.9614	.9617	.9620	.9623	.9626	.9629	.9632	.9634	.9637
440.0	.9640	.9643	.9645	.9648	.9651	.9653	.9656	.9658	.9661	.9663
450.0	.9666	.9669	.9671	.9673	.9676	.9678	.9681	.9683	.9686	.9688
460.0	.9690	.9693	.9695	.9697	.9699	.9702	.9704	.9706	.9708	.9711
470.0	.9713	.9715	.9717	.9719	.9721	.9723	.9726	.9728	.9730	.9732
480.0	.9734	.9736	.9738	.9740	.9742	.9744	.9745	.9747	.9749	.9751
490.0	.9753	.9755	.9757	.9759	.9760	.9762	.9764	.9766	.9768	.9769

FRACTIONAL INGROWTH OF RN - 222 INTO RA - 226

HOURS	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
500.0	.9771	.9773	.9774	.9776	.9778	.9779	.9781	.9783	.9784	.9786
510.0	.9788	.9789	.9791	.9792	.9794	.9796	.9797	.9799	.9800	.9802
520.0	.9803	.9805	.9806	.9807	.9809	.9810	.9812	.9813	.9815	.9816
530.0	.9817	.9819	.9820	.9821	.9823	.9824	.9825	.9827	.9828	.9829
540.0	.9831	.9832	.9833	.9834	.9836	.9837	.9838	.9839	.9841	.9842
550.0	.9843	.9844	.9845	.9846	.9848	.9849	.9850	.9851	.9852	.9853
560.0	.9854	.9855	.9857	.9858	.9859	.9860	.9861	.9862	.9863	.9864
570.0	.9865	.9866	.9867	.9868	.9869	.9870	.9871	.9872	.9873	.9874
580.0	.9875	.9876	.9877	.9878	.9878	.9879	.9880	.9881	.9882	.9883
590.0	.9884	.9885	.9886	.9886	.9887	.9888	.9889	.9890	.9891	.9891
600.0	.9892	.9893	.9894	.9895	.9895	.9896	.9897	.9898	.9899	.9899
610.0	.9900	.9901	.9902	.9902	.9903	.9904	.9905	.9905	.9906	.9907
620.0	.9907	.9908	.9909	.9909	.9910	.9911	.9911	.9912	.9913	.9913
630.0	.9914	.9915	.9915	.9916	.9917	.9917	.9918	.9918	.9919	.9920
640.0	.9920	.9921	.9921	.9922	.9923	.9923	.9924	.9924	.9925	.9926
650.0	.9926	.9927	.9927	.9928	.9928	.9929	.9929	.9930	.9930	.9931
660.0	.9931	.9932	.9932	.9933	.9933	.9934	.9934	.9935	.9935	.9936
670.0	.9936	.9937	.9937	.9938	.9938	.9939	.9939	.9940	.9940	.9941
680.0	.9941	.9941	.9942	.9942	.9943	.9943	.9944	.9944	.9944	.9945
690.0	.9945	.9946	.9946	.9946	.9947	.9947	.9948	.9948	.9948	.9949
700.0	.9949	.9950	.9950	.9950	.9951	.9951	.9951	.9952	.9952	.9953
710.0	.9953	.9953	.9954	.9954	.9954	.9955	.9955	.9955	.9956	.9956
720.0	.9956	.9957	.9957	.9957	.9958	.9958	.9958	.9959	.9959	.9959
730.0	.9959	.9960	.9960	.9960	.9961	.9961	.9961	.9962	.9962	.9962
740.0	.9962	.9963	.9963	.9963	.9963	.9964	.9964	.9964	.9965	.9965
750.0	.9965	.9965	.9966	.9966	.9966	.9966	.9967	.9967	.9967	.9967
760.0	.9968	.9968	.9968	.9968	.9969	.9969	.9969	.9969	.9969	.9970
770.0	.9970	.9970	.9970	.9971	.9971	.9971	.9971	.9971	.9972	.9972
780.0	.9972	.9972	.9972	.9973	.9973	.9973	.9973	.9974	.9974	.9974
790.0	.9974	.9974	.9974	.9975	.9975	.9975	.9975	.9975	.9976	.9976
800.0	.9976	.9976	.9976	.9976	.9977	.9977	.9977	.9977	.9977	.9978
810.0	.9978	.9978	.9978	.9978	.9978	.9978	.9979	.9979	.9979	.9979
820.0	.9979	.9979	.9980	.9980	.9980	.9980	.9980	.9980	.9980	.9981
830.0	.9981	.9981	.9981	.9981	.9981	.9981	.9982	.9982	.9982	.9982
840.0	.9982	.9982	.9982	.9983	.9983	.9983	.9983	.9983	.9983	.9983
850.0	.9983	.9984	.9984	.9984	.9984	.9984	.9984	.9984	.9984	.9984
860.0	.9985	.9985	.9985	.9985	.9985	.9985	.9985	.9985	.9985	.9986
870.0	.9986	.9986	.9986	.9986	.9986	.9986	.9986	.9986	.9986	.9987
880.0	.9987	.9987	.9987	.9987	.9987	.9987	.9987	.9987	.9987	.9988
890.0	.9988	.9988	.9988	.9988	.9988	.9988	.9988	.9988	.9988	.9988
900.0	.9988	.9989	.9989	.9989	.9989	.9989	.9989	.9989	.9989	.9989
910.0	.9989	.9989	.9989	.9990	.9990	.9990	.9990	.9990	.9990	.9990
920.0	.9990	.9990	.9990	.9990	.9990	.9990	.9990	.9991	.9991	.9991
930.0	.9991	.9991	.9991	.9991	.9991	.9991	.9991	.9991	.9991	.9991
940.0	.9991	.9991	.9991	.9992	.9992	.9992	.9992	.9992	.9992	.9992
950.0	.9992	.9992	.9992	.9992	.9992	.9992	.9992	.9992	.9992	.9992
960.0	.9993	.9993	.9993	.9993	.9993	.9993	.9993	.9993	.9993	.9993
970.0	.9993	.9993	.9993	.9993	.9993	.9993	.9993	.9993	.9993	.9993
980.0	.9993	.9994	.9994	.9994	.9994	.9994	.9994	.9994	.9994	.9994
990.0	.9994	.9994	.9994	.9994	.9994	.9994	.9994	.9994	.9994	.9994

UNIVERSAL DECAY TABLE

ACTIVITY REMAINING FOR TIME / HALF LIFE

0.000 - .998

N	0.000	.002	.004	.006	.008	.010	.012	.014	.016	.018
0.00	1.0000	.9986	.9972	.9958	.9945	.9931	.9917	.9903	.9890	.9876
.02	.9862	.9849	.9835	.9821	.9808	.9794	.9781	.9767	.9754	.9740
.04	.9727	.9713	.9700	.9686	.9673	.9659	.9646	.9633	.9619	.9606
.06	.9593	.9579	.9566	.9553	.9540	.9526	.9513	.9500	.9487	.9474
.08	.9461	.9447	.9434	.9421	.9408	.9395	.9382	.9369	.9356	.9343
.10	.9330	.9317	.9304	.9292	.9279	.9266	.9253	.9240	.9227	.9215
.12	.9202	.9189	.9176	.9164	.9151	.9138	.9126	.9113	.9100	.9088
.14	.9075	.9063	.9050	.9038	.9025	.9013	.9000	.8988	.8975	.8963
.16	.8950	.8938	.8925	.8913	.8901	.8888	.8876	.8864	.8852	.8839
.18	.8827	.8815	.8803	.8790	.8778	.8766	.8754	.8742	.8730	.8718
.20	.8706	.8693	.8681	.8669	.8657	.8645	.8633	.8621	.8609	.8598
.22	.8586	.8574	.8562	.8550	.8538	.8526	.8515	.8503	.8491	.8479
.24	.8467	.8456	.8444	.8432	.8421	.8409	.8397	.8386	.8374	.8362
.26	.8351	.8339	.8328	.8316	.8305	.8293	.8282	.8270	.8259	.8247
.28	.8236	.8225	.8213	.8202	.8190	.8179	.8168	.8156	.8145	.8134
.30	.8123	.8111	.8100	.8089	.8078	.8066	.8055	.8044	.8033	.8022
.32	.8011	.8000	.7989	.7977	.7966	.7955	.7944	.7933	.7922	.7911
.34	.7900	.7889	.7879	.7868	.7857	.7846	.7835	.7824	.7813	.7802
.36	.7792	.7781	.7770	.7759	.7749	.7738	.7727	.7716	.7706	.7695
.38	.7684	.7674	.7663	.7652	.7642	.7631	.7621	.7610	.7600	.7589
.40	.7579	.7568	.7558	.7547	.7537	.7526	.7516	.7505	.7495	.7485
.42	.7474	.7464	.7454	.7443	.7433	.7423	.7412	.7402	.7392	.7382
.44	.7371	.7361	.7351	.7341	.7331	.7320	.7310	.7300	.7290	.7280
.46	.7270	.7260	.7250	.7240	.7230	.7220	.7210	.7200	.7190	.7180
.48	.7170	.7160	.7150	.7140	.7130	.7120	.7110	.7101	.7091	.7081
.50	.7071	.7061	.7051	.7042	.7032	.7022	.7012	.7003	.6993	.6983
.52	.6974	.6964	.6954	.6945	.6935	.6926	.6916	.6906	.6897	.6887
.54	.6878	.6868	.6859	.6849	.6840	.6830	.6821	.6811	.6802	.6792
.56	.6783	.6774	.6764	.6755	.6746	.6736	.6727	.6718	.6708	.6699
.58	.6690	.6680	.6671	.6662	.6653	.6643	.6634	.6625	.6616	.6607
.60	.6598	.6588	.6579	.6570	.6561	.6552	.6543	.6534	.6525	.6516
.62	.6507	.6498	.6489	.6480	.6471	.6462	.6453	.6444	.6435	.6426
.64	.6417	.6408	.6399	.6390	.6382	.6373	.6364	.6355	.6346	.6338
.66	.6329	.6320	.6311	.6303	.6294	.6285	.6276	.6268	.6259	.6250
.68	.6242	.6233	.6224	.6216	.6207	.6199	.6190	.6181	.6173	.6164
.70	.6156	.6147	.6139	.6130	.6122	.6113	.6105	.6096	.6088	.6079
.72	.6071	.6063	.6054	.6046	.6037	.6029	.6021	.6012	.6004	.5996
.74	.5987	.5979	.5971	.5963	.5954	.5946	.5938	.5930	.5921	.5913
.76	.5905	.5897	.5889	.5880	.5872	.5864	.5856	.5848	.5840	.5832
.78	.5824	.5816	.5808	.5799	.5791	.5783	.5775	.5767	.5759	.5751
.80	.5743	.5736	.5728	.5720	.5712	.5704	.5696	.5688	.5680	.5672
.82	.5664	.5657	.5649	.5641	.5633	.5625	.5617	.5610	.5602	.5594
.84	.5586	.5579	.5571	.5563	.5556	.5548	.5540	.5532	.5525	.5517
.86	.5510	.5502	.5494	.5487	.5479	.5471	.5464	.5456	.5449	.5441
.88	.5434	.5426	.5419	.5411	.5404	.5396	.5389	.5381	.5374	.5366
.90	.5359	.5351	.5344	.5337	.5329	.5322	.5314	.5307	.5300	.5292
.92	.5285	.5278	.5270	.5263	.5256	.5249	.5241	.5234	.5227	.5220
.94	.5212	.5205	.5198	.5191	.5184	.5176	.5169	.5162	.5155	.5148
.96	.5141	.5133	.5126	.5119	.5112	.5105	.5098	.5091	.5084	.5077
.98	.5070	.5063	.5056	.5049	.5042	.5035	.5028	.5021	.5014	.5007

UNIVERSAL DECAY TABLE

ACTIVITY REMAINING FOR TIME / HALF LIFE

1.000 - 1.998

N	0.000	.002	.004	.006	.008	.010	.012	.014	.016	.018
1.00	.5000	.4993	.4986	.4979	.4972	.4965	.4959	.4952	.4945	.4938
1.02	.4931	.4924	.4918	.4911	.4904	.4897	.4890	.4884	.4877	.4870
1.04	.4863	.4857	.4850	.4843	.4836	.4830	.4823	.4816	.4810	.4803
1.06	.4796	.4790	.4783	.4776	.4770	.4763	.4757	.4750	.4743	.4737
1.08	.4730	.4724	.4717	.4711	.4704	.4698	.4691	.4685	.4678	.4672
1.10	.4665	.4659	.4652	.4646	.4639	.4633	.4627	.4620	.4614	.4607
1.12	.4601	.4595	.4588	.4582	.4575	.4569	.4563	.4557	.4550	.4544
1.14	.4538	.4531	.4525	.4519	.4513	.4506	.4500	.4494	.4488	.4481
1.16	.4475	.4469	.4463	.4457	.4450	.4444	.4438	.4432	.4426	.4420
1.18	.4414	.4407	.4401	.4395	.4389	.4383	.4377	.4371	.4365	.4359
1.20	.4353	.4347	.4341	.4335	.4329	.4323	.4317	.4311	.4305	.4299
1.22	.4293	.4287	.4281	.4275	.4269	.4263	.4257	.4251	.4245	.4240
1.24	.4234	.4228	.4222	.4216	.4210	.4204	.4199	.4193	.4187	.4181
1.26	.4175	.4170	.4164	.4158	.4152	.4147	.4141	.4135	.4129	.4124
1.28	.4118	.4112	.4107	.4101	.4095	.4090	.4084	.4078	.4073	.4067
1.30	.4061	.4056	.4050	.4044	.4039	.4033	.4028	.4022	.4016	.4011
1.32	.4005	.4000	.3994	.3989	.3983	.3978	.3972	.3967	.3961	.3956
1.34	.3950	.3945	.3939	.3934	.3928	.3923	.3917	.3912	.3907	.3901
1.36	.3896	.3890	.3885	.3880	.3874	.3869	.3864	.3858	.3853	.3848
1.38	.3842	.3837	.3832	.3826	.3821	.3816	.3810	.3805	.3800	.3795
1.40	.3789	.3784	.3779	.3774	.3768	.3763	.3758	.3753	.3747	.3742
1.42	.3737	.3732	.3727	.3722	.3716	.3711	.3706	.3701	.3696	.3691
1.44	.3686	.3681	.3675	.3670	.3665	.3660	.3655	.3650	.3645	.3640
1.46	.3635	.3630	.3625	.3620	.3615	.3610	.3605	.3600	.3595	.3590
1.48	.3585	.3580	.3575	.3570	.3565	.3560	.3555	.3550	.3545	.3540
1.50	.3536	.3531	.3526	.3521	.3516	.3511	.3506	.3501	.3497	.3492
1.52	.3487	.3482	.3477	.3472	.3468	.3463	.3458	.3453	.3448	.3444
1.54	.3439	.3434	.3429	.3425	.3420	.3415	.3410	.3406	.3401	.3396
1.56	.3392	.3387	.3382	.3377	.3373	.3368	.3363	.3359	.3354	.3349
1.58	.3345	.3340	.3336	.3331	.3326	.3322	.3317	.3313	.3308	.3303
1.60	.3299	.3294	.3290	.3285	.3281	.3276	.3271	.3267	.3262	.3258
1.62	.3253	.3249	.3244	.3240	.3235	.3231	.3226	.3222	.3217	.3213
1.64	.3209	.3204	.3200	.3195	.3191	.3186	.3182	.3178	.3173	.3169
1.66	.3164	.3160	.3156	.3151	.3147	.3143	.3138	.3134	.3129	.3125
1.68	.3121	.3117	.3112	.3108	.3104	.3099	.3095	.3091	.3086	.3082
1.70	.3078	.3074	.3069	.3065	.3061	.3057	.3052	.3048	.3044	.3040
1.72	.3035	.3031	.3027	.3023	.3019	.3015	.3010	.3006	.3002	.2998
1.74	.2994	.2990	.2985	.2981	.2977	.2973	.2969	.2965	.2961	.2957
1.76	.2952	.2948	.2944	.2940	.2936	.2932	.2928	.2924	.2920	.2916
1.78	.2912	.2908	.2904	.2900	.2896	.2892	.2888	.2884	.2880	.2876
1.80	.2872	.2868	.2864	.2860	.2856	.2852	.2848	.2844	.2840	.2836
1.82	.2832	.2828	.2824	.2820	.2817	.2813	.2809	.2805	.2801	.2797
1.84	.2793	.2789	.2785	.2782	.2778	.2774	.2770	.2766	.2762	.2759
1.86	.2755	.2751	.2747	.2743	.2740	.2736	.2732	.2728	.2724	.2721
1.88	.2717	.2713	.2709	.2706	.2702	.2698	.2694	.2691	.2687	.2683
1.90	.2679	.2676	.2672	.2668	.2665	.2661	.2657	.2654	.2650	.2646
1.92	.2643	.2639	.2635	.2632	.2628	.2624	.2621	.2617	.2613	.2610
1.94	.2606	.2603	.2599	.2595	.2592	.2588	.2585	.2581	.2577	.2574
1.96	.2570	.2567	.2563	.2560	.2556	.2553	.2549	.2545	.2542	.2538
1.98	.2535	.2531	.2528	.2524	.2521	.2517	.2514	.2510	.2507	.2503

UNIVERSAL DECAY TABLE

ACTIVITY REMAINING FOR TIME / HALF LIFE

2.000 - 2.998

N	0.000	.002	.004	.006	.008	.010	.012	.014	.016	.018
2.00	.2500	.2497	.2493	.2490	.2486	.2483	.2479	.2476	.2472	.2469
2.02	.2466	.2462	.2459	.2455	.2452	.2449	.2445	.2442	.2438	.2435
2.04	.2432	.2428	.2425	.2422	.2418	.2415	.2411	.2408	.2405	.2401
2.06	.2398	.2395	.2392	.2388	.2385	.2382	.2378	.2375	.2372	.2368
2.08	.2365	.2362	.2359	.2355	.2352	.2349	.2346	.2342	.2339	.2336
2.10	.2333	.2329	.2326	.2323	.2320	.2316	.2313	.2310	.2307	.2304
2.12	.2300	.2297	.2294	.2291	.2288	.2285	.2281	.2278	.2275	.2272
2.14	.2269	.2266	.2263	.2259	.2256	.2253	.2250	.2247	.2244	.2241
2.16	.2238	.2234	.2231	.2228	.2225	.2222	.2219	.2216	.2213	.2210
2.18	.2207	.2204	.2201	.2198	.2195	.2192	.2188	.2185	.2182	.2179
2.20	.2176	.2173	.2170	.2167	.2164	.2161	.2158	.2155	.2152	.2149
2.22	.2146	.2143	.2140	.2138	.2135	.2132	.2129	.2126	.2123	.2120
2.24	.2117	.2114	.2111	.2108	.2105	.2102	.2099	.2096	.2094	.2091
2.26	.2088	.2085	.2082	.2079	.2076	.2073	.2070	.2068	.2065	.2062
2.28	.2059	.2056	.2053	.2050	.2048	.2045	.2042	.2039	.2036	.2033
2.30	.2031	.2028	.2025	.2022	.2019	.2017	.2014	.2011	.2008	.2005
2.32	.2003	.2000	.1997	.1994	.1992	.1989	.1986	.1983	.1981	.1978
2.34	.1975	.1972	.1970	.1967	.1964	.1961	.1959	.1956	.1953	.1951
2.36	.1948	.1945	.1943	.1940	.1937	.1934	.1932	.1929	.1926	.1924
2.38	.1921	.1918	.1916	.1913	.1910	.1908	.1905	.1903	.1900	.1897
2.40	.1895	.1892	.1889	.1887	.1884	.1882	.1879	.1876	.1874	.1871
2.42	.1869	.1866	.1863	.1861	.1858	.1856	.1853	.1851	.1848	.1845
2.44	.1843	.1840	.1838	.1835	.1833	.1830	.1828	.1825	.1823	.1820
2.46	.1817	.1815	.1812	.1810	.1807	.1805	.1802	.1800	.1797	.1795
2.48	.1792	.1790	.1787	.1785	.1783	.1780	.1778	.1775	.1773	.1770
2.50	.1768	.1765	.1763	.1760	.1758	.1756	.1753	.1751	.1748	.1746
2.52	.1743	.1741	.1739	.1736	.1734	.1731	.1729	.1727	.1724	.1722
2.54	.1719	.1717	.1715	.1712	.1710	.1708	.1705	.1703	.1700	.1698
2.56	.1696	.1693	.1691	.1689	.1686	.1684	.1682	.1679	.1677	.1675
2.58	.1672	.1670	.1668	.1665	.1663	.1661	.1659	.1656	.1654	.1652
2.60	.1649	.1647	.1645	.1643	.1640	.1638	.1636	.1633	.1631	.1629
2.62	.1627	.1624	.1622	.1620	.1618	.1615	.1613	.1611	.1609	.1607
2.64	.1604	.1602	.1600	.1598	.1595	.1593	.1591	.1589	.1587	.1584
2.66	.1582	.1580	.1578	.1576	.1573	.1571	.1569	.1567	.1565	.1563
2.68	.1560	.1558	.1556	.1554	.1552	.1550	.1547	.1545	.1543	.1541
2.70	.1539	.1537	.1535	.1533	.1530	.1528	.1526	.1524	.1522	.1520
2.72	.1518	.1516	.1514	.1511	.1509	.1507	.1505	.1503	.1501	.1499
2.74	.1497	.1495	.1493	.1491	.1489	.1487	.1484	.1482	.1480	.1478
2.76	.1476	.1474	.1472	.1470	.1468	.1466	.1464	.1462	.1460	.1458
2.78	.1456	.1454	.1452	.1450	.1448	.1446	.1444	.1442	.1440	.1438
2.80	.1436	.1434	.1432	.1430	.1428	.1426	.1424	.1422	.1420	.1418
2.82	.1416	.1414	.1412	.1410	.1408	.1406	.1404	.1402	.1400	.1399
2.84	.1397	.1395	.1393	.1391	.1389	.1387	.1385	.1383	.1381	.1379
2.86	.1377	.1375	.1374	.1372	.1370	.1368	.1366	.1364	.1362	.1360
2.88	.1358	.1357	.1355	.1353	.1351	.1349	.1347	.1345	.1343	.1342
2.90	.1340	.1338	.1336	.1334	.1332	.1330	.1329	.1327	.1325	.1323
2.92	.1321	.1319	.1318	.1316	.1314	.1312	.1310	.1309	.1307	.1305
2.94	.1303	.1301	.1299	.1298	.1296	.1294	.1292	.1290	.1289	.1287
2.96	.1285	.1283	.1282	.1280	.1278	.1276	.1274	.1273	.1271	.1269
2.98	.1267	.1266	.1264	.1262	.1260	.1259	.1257	.1255	.1253	.1252

UNIVERSAL DECAY TABLE

ACTIVITY REMAINING FOR TIME / HALF LIFE

3.000 - 3.998

N	0.000	.002	.004	.006	.008	.010	.012	.014	.016	.018
3.00	.1250	.1248	.1247	.1245	.1243	.1241	.1240	.1238	.1236	.1235
3.02	.1233	.1231	.1229	.1228	.1226	.1224	.1223	.1221	.1219	.1218
3.04	.1216	.1214	.1212	.1211	.1209	.1207	.1206	.1204	.1202	.1201
3.06	.1199	.1197	.1196	.1194	.1192	.1191	.1189	.1188	.1186	.1184
3.08	.1183	.1181	.1179	.1178	.1176	.1174	.1173	.1171	.1170	.1168
3.10	.1166	.1165	.1163	.1161	.1160	.1158	.1157	.1155	.1153	.1152
3.12	.1150	.1149	.1147	.1145	.1144	.1142	.1141	.1139	.1138	.1136
3.14	.1134	.1133	.1131	.1130	.1128	.1127	.1125	.1123	.1122	.1120
3.16	.1119	.1117	.1116	.1114	.1113	.1111	.1110	.1108	.1106	.1105
3.18	.1103	.1102	.1100	.1099	.1097	.1096	.1094	.1093	.1091	.1090
3.20	.1088	.1087	.1085	.1084	.1082	.1081	.1079	.1078	.1076	.1075
3.22	.1073	.1072	.1070	.1069	.1067	.1066	.1064	.1063	.1061	.1060
3.24	.1058	.1057	.1056	.1054	.1053	.1051	.1050	.1048	.1047	.1045
3.26	.1044	.1042	.1041	.1040	.1038	.1037	.1035	.1034	.1032	.1031
3.28	.1029	.1028	.1027	.1025	.1024	.1022	.1021	.1020	.1018	.1017
3.30	.1015	.1014	.1013	.1011	.1010	.1008	.1007	.1006	.1004	.1003
3.32	.1001	.1000	.0999	.0997	.0996	.0994	.0993	.0992	.0990	.0989
3.34	.0988	.0986	.0985	.0983	.0982	.0981	.0979	.0978	.0977	.0975
3.36	.0974	.0973	.0971	.0970	.0969	.0967	.0966	.0965	.0963	.0962
3.38	.0961	.0959	.0958	.0957	.0955	.0954	.0953	.0951	.0950	.0949
3.40	.0947	.0946	.0945	.0943	.0942	.0941	.0939	.0938	.0937	.0936
3.42	.0934	.0933	.0932	.0930	.0929	.0928	.0927	.0925	.0924	.0923
3.44	.0921	.0920	.0919	.0918	.0916	.0915	.0914	.0913	.0911	.0910
3.46	.0909	.0907	.0906	.0905	.0904	.0902	.0901	.0900	.0899	.0897
3.48	.0896	.0895	.0894	.0893	.0891	.0890	.0889	.0888	.0886	.0885
3.50	.0884	.0883	.0881	.0880	.0879	.0878	.0877	.0875	.0874	.0873
3.52	.0872	.0871	.0869	.0868	.0867	.0866	.0864	.0863	.0862	.0861
3.54	.0860	.0859	.0857	.0856	.0855	.0854	.0853	.0851	.0850	.0849
3.56	.0848	.0847	.0846	.0844	.0843	.0842	.0841	.0840	.0839	.0837
3.58	.0836	.0835	.0834	.0833	.0832	.0830	.0829	.0828	.0827	.0826
3.60	.0825	.0824	.0822	.0821	.0820	.0819	.0818	.0817	.0816	.0814
3.62	.0813	.0812	.0811	.0810	.0809	.0808	.0807	.0805	.0804	.0803
3.64	.0802	.0801	.0800	.0799	.0798	.0797	.0795	.0794	.0793	.0792
3.66	.0791	.0790	.0789	.0788	.0787	.0786	.0785	.0783	.0782	.0781
3.68	.0780	.0779	.0778	.0777	.0776	.0775	.0774	.0773	.0772	.0771
3.70	.0769	.0768	.0767	.0766	.0765	.0764	.0763	.0762	.0761	.0760
3.72	.0759	.0758	.0757	.0756	.0755	.0754	.0753	.0752	.0751	.0749
3.74	.0748	.0747	.0746	.0745	.0744	.0743	.0742	.0741	.0740	.0739
3.76	.0738	.0737	.0736	.0735	.0734	.0733	.0732	.0731	.0730	.0729
3.78	.0728	.0727	.0726	.0725	.0724	.0723	.0722	.0721	.0720	.0719
3.80	.0718	.0717	.0716	.0715	.0714	.0713	.0712	.0711	.0710	.0709
3.82	.0708	.0707	.0706	.0705	.0704	.0703	.0702	.0701	.0700	.0699
3.84	.0698	.0697	.0696	.0695	.0694	.0693	.0693	.0692	.0691	.0690
3.86	.0689	.0688	.0687	.0686	.0685	.0684	.0683	.0682	.0681	.0680
3.88	.0679	.0678	.0677	.0676	.0675	.0675	.0674	.0673	.0672	.0671
3.90	.0670	.0669	.0668	.0667	.0666	.0665	.0664	.0663	.0662	.0662
3.92	.0661	.0660	.0659	.0658	.0657	.0656	.0655	.0654	.0653	.0652
3.94	.0652	.0651	.0650	.0649	.0648	.0647	.0646	.0645	.0644	.0643
3.96	.0643	.0642	.0641	.0640	.0639	.0638	.0637	.0636	.0635	.0635
3.98	.0634	.0633	.0632	.0631	.0630	.0629	.0628	.0628	.0627	.0626

UNIVERSAL DECAY TABLE

ACTIVITY REMAINING FOR TIME / HALF LIFE

4.000 - 4.998

N	0.000	.002	.004	.006	.008	.010	.012	.014	.016	.018
4.00	.0625	.0624	.0623	.0622	.0622	.0621	.0620	.0619	.0618	.0617
4.02	.0616	.0616	.0615	.0614	.0613	.0612	.0611	.0610	.0610	.0609
4.04	.0608	.0607	.0606	.0605	.0605	.0604	.0603	.0602	.0601	.0600
4.06	.0600	.0599	.0598	.0597	.0596	.0595	.0595	.0594	.0593	.0592
4.08	.0591	.0590	.0590	.0589	.0588	.0587	.0586	.0586	.0585	.0584
4.10	.0583	.0582	.0582	.0581	.0580	.0579	.0578	.0578	.0577	.0576
4.12	.0575	.0574	.0574	.0573	.0572	.0571	.0570	.0570	.0569	.0568
4.14	.0567	.0566	.0566	.0565	.0564	.0563	.0563	.0562	.0561	.0560
4.16	.0559	.0559	.0558	.0557	.0556	.0556	.0555	.0554	.0553	.0552
4.18	.0552	.0551	.0550	.0549	.0549	.0548	.0547	.0546	.0546	.0545
4.20	.0544	.0543	.0543	.0542	.0541	.0540	.0540	.0539	.0538	.0537
4.22	.0537	.0536	.0535	.0534	.0534	.0533	.0532	.0531	.0531	.0530
4.24	.0529	.0528	.0528	.0527	.0526	.0526	.0525	.0524	.0523	.0523
4.26	.0522	.0521	.0520	.0520	.0519	.0518	.0518	.0517	.0516	.0515
4.28	.0515	.0514	.0513	.0513	.0512	.0511	.0510	.0510	.0509	.0508
4.30	.0508	.0507	.0506	.0506	.0505	.0504	.0503	.0503	.0502	.0501
4.32	.0501	.0500	.0499	.0499	.0498	.0497	.0497	.0496	.0495	.0494
4.34	.0494	.0493	.0492	.0492	.0491	.0490	.0490	.0489	.0488	.0488
4.36	.0487	.0486	.0486	.0485	.0484	.0484	.0483	.0482	.0482	.0481
4.38	.0480	.0480	.0479	.0478	.0478	.0477	.0476	.0476	.0475	.0474
4.40	.0474	.0473	.0472	.0472	.0471	.0470	.0470	.0469	.0468	.0468
4.42	.0467	.0466	.0466	.0465	.0465	.0464	.0463	.0463	.0462	.0461
4.44	.0461	.0460	.0459	.0459	.0458	.0458	.0457	.0456	.0456	.0455
4.46	.0454	.0454	.0453	.0452	.0452	.0451	.0451	.0450	.0449	.0449
4.48	.0448	.0447	.0447	.0446	.0446	.0445	.0444	.0444	.0443	.0443
4.50	.0442	.0441	.0441	.0440	.0439	.0439	.0438	.0438	.0437	.0436
4.52	.0436	.0435	.0435	.0434	.0433	.0433	.0432	.0432	.0431	.0430
4.54	.0430	.0429	.0429	.0428	.0427	.0427	.0426	.0426	.0425	.0425
4.56	.0424	.0423	.0423	.0422	.0422	.0421	.0420	.0420	.0419	.0419
4.58	.0418	.0418	.0417	.0416	.0416	.0415	.0415	.0414	.0413	.0413
4.60	.0412	.0412	.0411	.0411	.0410	.0409	.0409	.0408	.0408	.0407
4.62	.0407	.0406	.0406	.0405	.0404	.0404	.0403	.0403	.0402	.0402
4.64	.0401	.0401	.0400	.0399	.0399	.0398	.0398	.0397	.0397	.0396
4.66	.0396	.0395	.0394	.0394	.0393	.0393	.0392	.0392	.0391	.0391
4.68	.0390	.0390	.0389	.0388	.0388	.0387	.0387	.0386	.0386	.0385
4.70	.0385	.0384	.0384	.0383	.0383	.0382	.0382	.0381	.0380	.0380
4.72	.0379	.0379	.0378	.0378	.0377	.0377	.0376	.0376	.0375	.0375
4.74	.0374	.0374	.0373	.0373	.0372	.0372	.0371	.0371	.0370	.0370
4.76	.0369	.0369	.0368	.0368	.0367	.0367	.0366	.0365	.0365	.0364
4.78	.0364	.0363	.0363	.0362	.0362	.0361	.0361	.0360	.0360	.0359
4.80	.0359	.0358	.0358	.0357	.0357	.0356	.0356	.0356	.0355	.0355
4.82	.0354	.0354	.0353	.0353	.0352	.0352	.0351	.0351	.0350	.0350
4.84	.0349	.0349	.0348	.0348	.0347	.0347	.0346	.0346	.0345	.0345
4.86	.0344	.0344	.0343	.0343	.0342	.0342	.0341	.0341	.0341	.0340
4.88	.0340	.0339	.0339	.0338	.0338	.0337	.0337	.0336	.0336	.0335
4.90	.0335	.0334	.0334	.0334	.0333	.0333	.0332	.0332	.0331	.0331
4.92	.0330	.0330	.0329	.0329	.0328	.0328	.0328	.0327	.0327	.0326
4.94	.0326	.0325	.0325	.0324	.0324	.0324	.0323	.0323	.0322	.0322
4.96	.0321	.0321	.0320	.0320	.0320	.0319	.0319	.0318	.0318	.0317
4.98	.0317	.0316	.0316	.0316	.0315	.0315	.0314	.0314	.0313	.0313

UNIVERSAL DECAY TABLE

ACTIVITY REMAINING FOR TIME / HALF LIFE

5.000 - 14.980

N	0.000	.020	.040	.060	.080	.100	.120	.140	.160	.180
5.00	.0313	.0308	.0304	.0300	.0296	.0292	.0288	.0284	.0280	.0276
5.20	.0272	.0268	.0265	.0261	.0257	.0254	.0250	.0247	.0243	.0240
5.40	.0237	.0234	.0230	.0227	.0224	.0221	.0218	.0215	.0212	.0209
5.60	.0206	.0203	.0201	.0198	.0195	.0192	.0190	.0187	.0185	.0182
5.80	.0179	.0177	.0175	.0172	.0170	.0167	.0165	.0163	.0161	.0158
6.00	.0156	.0154	.0152	.0150	.0148	.0146	.0144	.0142	.0140	.0138
6.20	.0136	.0134	.0132	.0130	.0129	.0127	.0125	.0123	.0122	.0120
6.40	.0118	.0117	.0115	.0114	.0112	.0110	.0109	.0107	.0106	.0105
6.60	.0103	.0102	.0100	.0099	.0098	.0096	.0095	.0094	.0092	.0091
6.80	.0090	.0089	.0087	.0086	.0085	.0084	.0083	.0081	.0080	.0079
7.00	.0078	.0077	.0076	.0075	.0074	.0073	.0072	.0071	.0070	.0069
7.20	.0068	.0067	.0066	.0065	.0064	.0063	.0063	.0062	.0061	.0060
7.40	.0059	.0058	.0058	.0057	.0056	.0055	.0054	.0054	.0053	.0052
7.60	.0052	.0051	.0050	.0049	.0049	.0048	.0047	.0047	.0046	.0045
7.80	.0045	.0044	.0044	.0043	.0042	.0042	.0041	.0041	.0040	.0040
8.00	.0039	.0039	.0038	.0037	.0037	.0036	.0036	.0035	.0035	.0034
8.20	.0034	.0034	.0033	.0033	.0032	.0032	.0031	.0031	.0030	.0030
8.40	.0030	.0029	.0029	.0028	.0028	.0028	.0027	.0027	.0026	.0026
8.60	.0026	.0025	.0025	.0025	.0024	.0024	.0024	.0023	.0023	.0023
8.80	.0022	.0022	.0022	.0022	.0021	.0021	.0021	.0020	.0020	.0020
9.00	.0020	.0019	.0019	.0019	.0018	.0018	.0018	.0018	.0017	.0017
9.20	.0017	.0017	.0017	.0016	.0016	.0016	.0016	.0015	.0015	.0015
9.40	.0015	.0015	.0014	.0014	.0014	.0014	.0014	.0013	.0013	.0013
9.60	.0013	.0013	.0013	.0012	.0012	.0012	.0012	.0012	.0012	.0011
9.80	.0011	.0011	.0011	.0011	.0011	.0010	.0010	.0010	.0010	.0010
10.00	.0010	.0010	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009
10.20	.0009	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008
10.40	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007
10.60	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006
10.80	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005
11.00	.0005	.0005	.0005	.0005	.0005	.0005	.0004	.0004	.0004	.0004
11.20	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004
11.40	.0004	.0004	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003
11.60	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
11.80	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
12.00	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
12.20	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
12.40	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
12.60	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0001	.0001
12.80	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
13.00	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
13.20	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
13.40	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
13.60	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
13.80	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
14.00	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
14.20	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000
14.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
14.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
14.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000